A STUDY TO EVALUATE THE EFFECTIVENESS OF INFORMATION EDUCATION AND COMMUNICATION (IEC) ON KNOWLEDGE REGARDING MANAGEMENT OF DIALYSIS AMONG PATIENTS WITH CHRONIC RENAL FAILURE IN SELECTED HOSPITAL AT THENI

COIMBATORE

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF REQUIREMENT FOR THE DEGREE OF

MASTER OF SCIENCE IN NURSING

APRIL 2016

A STUDY TO EVALUATE THE EFFECTIVENESS OF INFORMATION EDUCATION AND COMMUNICATION (IEC) ON KNOWLEDGE REGARDING MANAGEMENT OF DIALYSIS AMONG PATIENTS WITH CHRONIC RENAL FAILURE IN SELECTED HOSPITAL AT THENI

BY

HEPSIBA BEULA RAJAM.T

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF REQUIREMENT FOR THE DEGREE OF

MASTER OF SCIENCE IN NURSING

APRIL 2016

A STUDY TO EVALUATE THE EFFECTIVENESS OF INFORMATION EDUCATION AND COMMUNICATION (IEC) ON KNOWLEDGE REGARDING MANAGEMENT OF DIALYSIS AMONG PATIENTS WITH CHRONIC RENAL FAILURE IN SELECTED HOSPITAL AT THENI

APPROVED BY THE DISSERTATION COMMITTEE ON …….....

RESEARCH GUIDE …….…..…….....

Prof. Dr. Mrs. R. ANNAPOORANI,
MA., M.Phil., Ph.D., DSP., D.Sc.,(GER.)
PROFESSOR IN RESEARCH METHODS,
ANNAI MEENAKSHI COLLEGE OF NURSING,
COIMBATORE.

CLINICAL GUIDE ……..……

Mrs.S.BALAMANI, M.Sc. (N).,
ASSOCIATE PROFESSOR,
ANNAI MEENAKSHI COLLEGE OF NURSING,
COIMBATORE.

MEDICAL EXPERT ……...……...…….....

Prof. Dr.S. VEERAKESARI, MD.,
CONSULTANT PHYSICIAN,
SHRI MEENAKSHI HOSPITAL, COIMBATORE.

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF REQUIREMENT FOR THE DEGREE OF

MASTER OF SCIENCE IN NURSING

APRIL 2016

VIVA VOICE

1. INTERNAL EXAMINER……..……..……...
2. EXTERNAL EXAMINER……..…..……

CERTIFIED THAT THIS IS THE BONAFIDE WORK OF

HEPSIBA BEULA RAJAM.T

ANNAI MEENAKSHI COLLEGE OF NURSING,

COIMBATORE.

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING TO THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI.

COLLEGE SEAL:

PROF. MRS. M. MUMTAZ, M.Sc., (N)., M B A(H M).,

PRINCIPAL,

ANNAI MEENAKSHI COLLEGE OF NURSING,

COIMBATORE,

TAMILNADU.

This is to certify that the dissertation entitled ‘‘**A Study To Evaluate The Effectiveness Of Information Education and Communication(IEC) On Knowledge Regarding Management Of Dialysis Among Patients with Chronic Renal Failure In Selected Hospital At Theni’’** is a bonafide work done by **Hepsiba Beula Rajam, Annai Meenakshi College Of Nursing** in partial fulfilment of the university rules and regulations for award of **M.Sc.Nursing Degree Course** under my Guidance and supervision during the academic year **April 2016.**

NAME AND SIGNATURE OF GUIDE……..……..

NAME AND SIGNATURE OF HOD…….……...

NAME AND SIGNATURE OF DEAN/ PRINCIPAL……

DEDICATION

****

"I dedicate this book to
God almighty who blessed me to finish this work successfully."

I submit this credit to my husband
Mr. AJITH SAM KUMAR
Who made my life most pleasure and without him it wouldn't have been possible to complete my study.

I dedicate this book to my lovable Parents
Mr. THAMBI RAJA &Mrs.KOHILA RAJA
those who made my life purposeful and meaningful

I dedicate this book to my beloved brother in law and sister
MR.VINOTH, MRS.CHIRSTY,MR.JACK
who gave me a marvelous emotional support

I dedicate this book to my father-in- law
Mr.SAMUEL*and mother-in-law*
Mrs.JOICE
For their love and support.

*****

ACKNOWLEDGEMENT

"Knowledge is an end based on acknowledgement"

It is my greatest privilege to recall many persons to whom I am indebted for their contribution in various ways directly and indirectly with profound sentiments of heartfelt gratitude. I offer my sincere thanks to all those who have contributed to the successful completion of this work.

I praise and thank the LORD ALMIGHTY who has been my source of strength in every step of my life and foundation of my knowledge and wisdom.

I express my sincere thanks to Mr.M.PADMANABHAN,M.A, **Correspondent** of our college for given me an opportunity to study in this esteemed institution.

Excellent teacher is a complex matrix of builder, artist, leader and harvester. I would like to express my immense gratitude and whole hearted thanks to our **Principal** Prof.Mrs.M.MUMTAZ,M.Sc.(N)MBA(HM)., for her insisting support, constructive suggestions and immense encouragement which enabled me to reach my objective. I consider it as a great honor and privilege to have completed under her supervision.

I proudly and honestly express my deep sincere thanks and gratefulness to my **Clinical Guide** Mrs.S.BALAMANI,M.Sc.(N)., Associate Professor cum Class Co-ordinator for her illuminating comments, patience and intuitiveness and untiring interest shown throughout the study.

I owe my sincere gratitude to my **Research Guide** Prof.Dr.ANNAPOORANI, MA., M.Phil., Ph.D.,DSP.,D.Sc.,(GER), Professor in Research methodology for her excellent guidance.

I am pleased to convey my profound thanks to my **Medical Expert** Prof. Dr. VEERAKESARI, MD., consultant physician in Shri Meenakshi Hospital for his excellent guidance, expert suggestion, encouragement and support that made the study purposeful.

I honestly express my sincere thanks and gratefulness to my **SAMPLES** for their cooperation.

I am very much thankful to Ms.C. ESWARI, M.Sc.,(N)., **Associate Professor** and Mrs.BABEE**,** M.Sc.(N**).,** **Lecturer** for their help, guidance and valuable suggestions for my study.

I profoundly express my sincere thanks to Dr. KRISHNA KUMAR, M.Phil.,Ph.D and MR.ANNASWAMY, M.Phil., for their assistance in statistics.

I express my gratitude to my **Lecturers** Mrs. SARANYA, M.Sc.,(N)., Mrs. MULLAIKODI M.Sc.,(N), Ms. SANTHANA LAKSHMI, M.Sc.,(N) Ms.UDAYA JAYANTHI, M.Sc.(N)., Ms. RAMYABHARATHI, M.Sc.,(N), Mr. PRADEEP, M.Sc.,(N)., Mrs. PREMA LATHA M.Sc., (N), for their valuable contribution and suggestion to this thesis.

My special thanks to the **experts** who validated my tool and for their valuable suggestions and constructive comments.

I would like to acknowledge an immense help and support extended to me by Mrs. SULOCHANA, M.Com., M.L.I.Sc, and Mrs. JAYALAKSHMI, B.Sc,B.L.I.Sc **Librarians** for their help in collection of literature.

I sincerely thank all **B.SC (N).,Faculty** and non-teaching faculty members of Annai Meenakshi College of Nursing for their help rendered in various ways to fulfill my research work.

I think and remember all my friends with gratitude for helping me directly and indirectly in this study.

I submit my grateful thanks to my beloved husband, parents for being the motivating force for my research project.

I express my gratitude to Mr. Venkatesh, Green Park Net Café, Sundarapuram for computing the manuscript clearly, legibly and effectively within short time as requested.

ABSTRACT

INTRODUCTION : The main aim of the present study was to improve the knowledge regarding management of dialysis among patients with Chronic Renal Failure.

OBJECTIVE : To evaluate the effectiveness of Information Education and Communication(IEC) on knowledge regarding management of dialysis among patients with Chronic Renal Failure.

DESIGN : A quantitative approach using quasi experimental design with pre-test post-test.

PARTICIPANTS : 60 clients with Chronic Renal Failure was selected using convenient sampling in Krishnammal Hospital at Theni.

INTERVENTION : Informaion, Education and Communication on management of dialysis was given for 45 minutes on the second day.

TOOLS : Structured Interview Questionnaire on demographic variables and knowledge regarding management of dialysis.

RESULT : Analysis using paired 't' test found significant values at $p < 0.01$ level.

CONCLUSION : This study finding conclude that Information Education and Communication is effective in improving knowledge regarding management of dialysis among patients with Chronic Renal Failure.

Keywords : evaluate, effectiveness, Information, Education, Communication, knowledge, dialysis, Chronic Renal Failure.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

"THE GREATEST WEALTH IS HEALTH"

Kidneys are the principle organs of the urinary system and their primary function is to regulate the volume and composition of extra cellular fluid (ECF) and waste products from the body. The kidneys play an important role in the regulation of body electrolytes, controlling the acid –base balance .The kidneys perform endocrine functions also. The kidneys are the major organs for the metabolism of calcitonin , parathyroid hormone (PTH) and insulin.

Function of the renal and urinary systems is essential to life. The primary purpose of the renal and urinary system is to maintain the body's state of homeostasis by carefully regulating the fluid and electrolytes, removing wastes. Dysfunction of the kidneys and lower urinary tract is common and may occur at any age with varying degrees of severity.

Kidney diseases attack the nephrons, causing them to lose their filtering capacity. Damage to the nephrons can happen quickly, or gradually. But most of the kidney diseases destroy the nephrons slowly and silently. Only after years or even decades the damage becomes apparent.

The common kidney disorders are acute kidney injury, acute nephritic syndrome, anuria, chronic kidney diseases(CKD), interstitial nephritis, nephrosclerosis, nephritic syndrome, oliguria, acute renal failure, chronic renal failure, pyelonephritis, polyuria etc.,

Chronic Renal Failure (CRF) is an umbrella term that describes kidney damage or a decrease in the glomerular filtration rate lasting for 3 or more months. Chronic Renal Failure is associated with decreased quality of life, increased health care expenditures and premature death.

Chronic Renal Failure is a progressive reduction of functioning renal tissue and they can no longer adequately remove fluids and wastes from the body or maintain proper levels of kidney-regulated chemicals in the bloodstream.

Chronic Renal Failure is a condition where there is a permanent and irreversible impairment of both glomerular and tubular functions of gradual onset persisting for over three months of such severity that the kidneys are no longer able to maintain the normal internal environment. The rate of progression is variable and it may take months or many years to reach End Stage Renal Failure.

Patients with Chronic kidney disease (CKD) are at increased risk for cardiovascular disease, which is the leading cause of morbidity and mortality. Treatment of hypertension , anemia, hyperglycemia and detection of proteinuria help to slow disease progression and improve patient outcomes.

Untreated Chronic Renal Failure(CRF) can result in End Stage Renal Disease(ESRD), which is the final stage of renal failure. End Stage Renal Disease(ESRD) results in the retention of uremic waste products. When the kidneys cannot remove the body's metabolic wastes or perform their regulatory functions the renal replacement therapies such as dialysis or kidney transplantation are required to sustain life.

Dialysis is a technique in which substances move from the blood through a semi permeable membrane into a dialysis solution. It is used to correct fluid and electrolyte imbalances and to remove waste products in renal failure. It can also be used to treat drug overdoses. Dialysis can be done rapidly or over a long period of time, and the need for replacement therapy can be acute or chronic.

Dialysis is begun when the patient's uremia can no longer be adequately managed conservatively. Generally dialysis is initiated when GFR is less than 15 mL/min. This criterion can vary widely in different clinical situations and the physician will determine to start dialysis based on the patient's clinical status. Certain uremic complications, including encephalopathy, neuropathies, uncontrolled hyperkalemia , pericarditis and accelerated hypertension indicate a need for immediate dialysis.

Achieving the highest level of functioning not only improves the life of the patient, but rewards staff through positive feedback. Nurses working with

dialysis patients should remember that patients on long term dialysis will benefit from ongoing nursing support, education and encouragement.

There are various strategies which help to impart knowledge regarding management of dialysis to the patients with Chronic Renal failure .One among these is Information Education Communication (IEC) , which refers to systematically planned teaching designed to provide information on management of dialysis and so that the people may get adequate knowledge regarding management of dialysis.

Information, Education and communication (IEC) is coordinated, multifaceted interventions designed to optimize a renal patient's physical, mental and social well functioning, in addition to stabilizing, thereby reducing morbidity and mortality.

The role of Information Education and Communication (IEC) is helping the patient to understand how to live well with dialysis and improving physical fitness, improving mental functioning to enable them live their life to the fullest.

NEED FOR THE STUDY

Centers For Disease Control and Prevention(2008) , estimated that the incidence of Chronic Kidney Failure among people age 65 and older has doubled between 2000 and 2008.The incidence of recognized CKD among 20 to 64 year olds is less than 0.5%.The number of hospitalizations that included CKD

diagnosis rose from 3,942 in 1996 to 23,052 in 2008.The percentage of CKD diagnoses that required dialysis declined from 13.39 in 1996 to 2.25 in 2008

According to Wolters Kluwer (2009), Chronic kidney disease (CKD) is associated with decreased quality of life , increased health expenditures, and premature death. It is also estimated that 10% of the U.S. population aged 20 years and older has CKD. More than 35% of the U.S.population aged 20 years and older with diabetes have CKD. Diabetes is the leading cause of renal failure in patients starting renal replacement therapy.

Ilangovan, George Abraham (2013) conducted a study on current status, challenges and management of CKD in India. The study revealed that the chronic disease account for 605 of all deaths worldwide in India and projected number of death due to chronic disease was around 7.21 million in 2010 and it is expected to rise to 9.63 million in 2020.

According National Health and Nutrition Examination Survey (NHANES) (2003-2006) the prevalence of CKD among people aged 60 and older jumped from 18.8 to 24.5 percent. During the same period, the prevalence of CKD in people between the ages of 20 and 39 stayed consistently below 0.5 percent. At the end of 2009 398,861 CKD patients were being treated with some form of dialysis.

The National Kidney Foundation In India(2013) estimated that 1 in every 3 adults is currently at risk of developing Chronic Kidney Disease. 26 million

adults have kidney disease in India. In 2013, more than 47,000 Indians died from kidney disease. Approximately 450,000 peoples are on dialysis and approximately 185,000 live with a functioning Kidney transplant. Of more than 123,000 people currently on waiting list for a lifesaving organ transplant, over 101,000 need a kidney.

US Renal Data System (2011) states that about 30 percent of patients with Type 1 (juvenile onset) diabetes and 10 to 40 percent of those with Type 2 (adult onset) diabetes eventually will suffer from kidney failure.

National Institute of Health(2007) estimated that there are approximately 7.85 million people suffering from chronic kidney failure in India.

According to World Health Organization(2012), patients with chronic renal failure are at high risk of (CVD) and cerebro vascular disease (CBVD) and they are more likely to die of cardiovascular disease than to develop end-stage renal failure.

Centers for Disease control (2009) reported the annual report data of India in 2009 .It revealed that prevalence of cardiovascular disease(CVD) reached 63% in CKD patients compared to 5.8%of those without CKD and it graded the association with both CKD severity and age .Only about 20% of patients with stage IV CKD had progressed to dialysis ,whereas 46% had died of cardiovascular complications.

According to the National kidney federation (2011) CKD is at increased risk for heart attack and stroke, especially if they smoke or are overweight. People with CKD should have regular checks of their kidney function and have treatment if their blood pressure is 140/85 or more.

Suresh Chandra Dash and Sanjay K. Agarwal (2005) conducted "prevalence of Chronic Renal Failure in adults" India. The study shown the incidence rate of approximately 7.85million CRF cases out of 1 billion population in India.

The investigator observed from nephrology hospital that, most of the patients admitted with Chronic Renal Failure were unaware of the treatment regimen and the disease condition .Nurses are ideally placed to provide health education and information support. The nurse coordinator should be equipped with appropriate skills, knowledge and time to deliver health education to the client. Hence , the researcher took interest on health teaching on management on dialysis among patients with Chronic Renal Failure and selected it for dissertation.

STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of Information Education and Communication (IEC) on Knowledge regarding management of dialysis among patients with Chronic Renal Failure in selected hospital at Theni.

OBJECTIVES OF THE STUDY

The objectives if the study were：

- To assess the pre test and post test level of knowledge regarding management of dialysis among patients with Chronic Renal Failure in experimental and control group.
- To evaluate the effectiveness of Information Education Communication on level of Knowledge regarding management of dialysis among patients in experimental group.
- To determine the association between pre test level of knowledge regarding management of dialysis among patients with chronic renal failure and their selected demographic variables such as age, gender , type of family, educational status, type of work, religion, marital status, family monthly income, associated diseases.

HYPOTHESES

H1 There is a significant difference between the mean pre and post test level of knowledge regarding management of dialysis among patients with Chronic Renal Failure.

H2 There is a significant association between the mean pre-test level of knowledge regarding management of dialysis among patients with Chronic Renal Failure with their selected demographic variables. (age, gender, educational status, type of family, type of work, occupation status, educational status, religion and associated disease).

OPERATIONAL DEFINITIONS

Evaluate

Evaluate means an act of ascertaining or fixing the value. In the study, it refers to ascertaining the value about the knowledge regarding the management of dialysis among patients with Chronic Renal Failure.

Effectiveness

Effectiveness refers to having an effect and producing a result. In this study, effectiveness refers to the extent to which Information Education Communication on management on dialysis has achieved the desired effect on knowledge among patients with Chronic Renal Failure.

Information Education and Communication

IEC refers to a public health approach aiming at changing or reinforcing health related behaviours in a target audience, concerning a specific problem and within a pre-defined period of time, through communication methods and principles.

In this study it refers to systematically planned teaching programme to provide information regarding management of dialysis. It consists of meaning, types, indications , contraindications, complications, general instructions. Education given to Chronic Renal Failure patients in 45 minutes by audio visual aids.

Knowledge

It refers to learning information and familiar with fact or truth.

It refers to the verbalization of learned information and familiarity with facts of truth regarding management of dialysis. It is measured by structured interview questionnaire on dialysis.

Dialysis

Dialysis is a technique in which substances move from the blood through a semipermeable membrane and into a dialysis solution. It is used to correct fluid and electrolyte imbalances and to remove waste products in renal failure.

CHRONIC RENAL FAILURE

Chronic Renal Failure is a progressive reduction of functioning renal tissue and they can no adequately remove fluids and wastes from the body or maintain proper levels of kidney regulated chemicals in the bloodstream.

All laboratory results confirms that Chronic Renal Failure

ASSUMPTIONS

- Patients with CRF have inadequate knowledge regarding dialysis..
- Patients with CRF have no adequate education about the dialysis.
- Information, Education and Communication has positive effect on improving the knowledge regarding dialysis.
- Management of dialysis measures will improve the CRF patients quality of life.

DELIMITATIONS

- The study is delimited to selected hospital in Theni.
- The study is delimited to patient with CRF.
- The data collection period was delimited to period of 6 weeks.

PROJECTED OUTCOMES

- This study enables nurses to assess the knowledge regarding the management of dialysis among patients with Chronic Renal Failure.
- This study enables the patients to improve their knowledge regarding the management of dialysis.
- The findings of the study will help the nurses to implement the educational plan for management of dialysis.
- The findings of the study will help the nurses to include the dialysis measures in their routine care.
- The findings of the study will help the nurses to motivate patients for dialysis.
- The findings of the study will help the nurses to implement the educational plan for management of dialysis.

CHAPTER II

REVIEW OF LITERATURE

The review of literature in a research report is a summary of current knowledge about a particular practice problem and includes what is known and not known about the problem. The literature is reviewed to summarize knowledge for use in practice or to provide a basis for conducting a study.

According to Agarwal RK (2013) the review of literature is defined as a broad, comprehensive in depth, systematic and critical review of scholarly publications, unpublished scholarly print materials and personal communication.

Literature was reviewed and organized under the following headings.

- Studies related to dialysis.
- Studies related to knowledge regarding management of dialysis.
- Studies related to effectiveness of Information Education and Communication on knowledge regarding management of dialysis.

STUDIES RELATED TO DIALYSIS

Tania Burns, Ritin S Fernandez, Moira Stephens., (2015) conducted a descriptive study in New York on the experiences of adults on dialysis and waiting for a renal transplant from a deceased donor. The study revealed that people who are waiting for kidney transplant from a deceased donor are affected by the experience of

living on dialysis with end stage renal disease and its impact on their physical health and normal activities of living. The study concluded that people who are waiting for a kidney transplant from a deceased donor live with the physical effects of a life limiting chronic illness and dialysis therapy.

Aliasgharpour M, Shomlai M, Moghaddam MZ, Faghihzadeh S., (2012) conducted a quasi experimental study in Iran on effectiveness of a self-efficacy promotion training programme on body weight changes among 63 hemodialysis patients. The study revealed that there is significant reduction in the body weight gain and improvement self-efficacy. The study concluded that implementing a self-efficacy promotion training programme is effective in decreasing weight gain and increasing self-efficacy.

Wong FK, Chow SK, Chan TM., (2010) conducted a randomized control trail in china on evaluation of a nurse-led disease management programme among chronic kidney disease patients. The study revealed that there was significant difference in the outcome measures of diet non-adherence, sleep, symptom, staff encouragement, overall health and satisfaction. The study concluded that chronic kidney disease management programmes helps to optimize the use of different levels of skills and resources to bring about positive outcomes.

Rasheed A, Balogun MD, Kline Bolton W (2010) conducted a qualitative assessment of literature and review of current management guidelines of CKD. They revealed that Mortality rates are still unacceptably high despite improved technical and medical knowledge in the care of patients with end-stage renal disease. They

concluded that early recognition of CKD along with timely initiation of comprehensive treatment and collaboration with a nephrologist will provide optimal care for patients with CKD.

Hamdan H Al-Jagdali et al.(2010) conducted an observational sectional study over a period of five months in two hemodilaysis centers in Saudi Arabia in order to assess the prevalence of insomnia among Saudi clients with End stage Renal Disease. Out of 227 enrolled clients, insomnia was reported by 60.8% out of which 53.7% were males and 46.3% were females. It concluded that, insomnia is common among clients undergoing dialysis and is significantly associated with other sleep disorders.

Lopes AA, Kurokawa K, Canaud BJ, Port FK, Held PJ (2005) conducted a study in United States that Health –related quality of life among dialysis patients. They revealed that health-realted quality of life can provide information on the types and burdens of that afflict patients with chronic medical conditions, including end-stage renal disease (ESRD). They concluded that hemodialysis patients perceived that their kidney disease imposes a greater burden, but their physical functioning was significantly higher.

Parsons TL, Toffelmire EB, King-van vlack CE., (2004) conducted an experimental study in Canada on effect of an exercise program during hemodialysis on dialysis efficacy, blood pressure and quality of life among end-stage renal disease (ESRD) patients by using serum urea clearance and dialysate urea clearance (DUC),resting blood pressure monitoring and SF-36 questionnaire. The study

revealed that there was significant elevation in the DUC, no changes in resting blood pressure, no effect on QOL scores. This study concluded that exercise during dialysis enhanced dialysate urea removal but not serum urea clearance.

Kouidi E, Toffelmire EB, McCarthyG, (2004) conducted an experimental study in Greece on outcomes of long-term exercise training among 48 dialysis patients by using modified Bruce treadmill exercise test and spiroergometric study and the patient's perception of health. The study revealed that there is improvement in exercise capacity, perception of improved health and increase in the proportion of patients working. The study concluded that long-term physical training programs are effective in improving physical fitness and health among hemodialysis patients.

Cheng YY, Wong YF , ChuBY.,(2003) conducted an experimental study in China on rehabilitation programme among Chronic End Stage Renal Disease (ESRD) patient to improve the quality of life. The study revealed that there is a significant change in patients attitude towards life programme. The study concluded that the development of coping skills and more positive attitudes can lead to a better life style and continued employment.

STUDIES RELATED TO KNOWLEDGE REGARDING MANAGEMENT OF DIALYSIS

Shashi Kumar Jawadagi, Shri B.M. Patil (2014) conducted a descriptive study to assess the knowledge and practices of dialysis in Chronic Renal Failure patients undergoing hemodialysis. The structured interview questionnaire was used to assess

the knowledge and practices of dialysis regulation in Chronic Renal Failure patients. They revealed that highest level of knowledge was scored 16.59%, 56.86% had scored between the ranges of 10-18 practices scores. They concluded that the horizon nurses to educate the importance of dialysis in Chronic Renal Failure patients undergoing hemodialysis.

Bhvanesh Shukla, Amandeep Kaur (2012) Punjab conducted an exploratory study to assess knowledge regarding management of dialysis among patients undergoing hemodialysis. The study revealed that 25% of patients had excellent knowledge and 22.73% had below average knowledge regarding management of dialysis and majority of patients undergoing hemodialysis had moderately positive attitude towards management of dialysis. They concluded that Chronic Kidney Disease patients should be given certain guidelines regarding management of dialysis and should be counselled regularly at each visit while receiving hemodialysis.

Kerri L. Cavanaugh, Rebacca L Wingard, Tom A Elasy (2009) Washington conducted a descriptive study to assess dialysis knowledge is associated with permanent arteriovenous access use in Chronic Hemodialysis. The study reveals that lower scores were associated with older age, fewer years of education, and non white race. Patients with Chronic Hemodialysis knowledge survey scores 20% points higher were more likely to use an arteriovenous fistula or graft compared with a catherter at hemodialysis initiation and 6 months after adjustment for age, sex, race, education and diabetes mellitus. The study concluded that dialysis knowledge may be less likely to use an Arteriovenous access for dialysis at initiation and after starting hemodialysis. Additional studies are needed to explore the impact of patient dialysis

knowledge, and its improvement after educational intervention on vascular assess in hemodialysis.

Goovaerts T, Jadoul M, Gofffin.,(2005) conducted an experimental study Belgium to evaluate the influence of a pre-dialysis education programme (PDEP) on the mode of renal replacement therapy among 242 patients by using structured pre dialysis education programme(PDEP).This study revealed that there is significant association with the RRT modality with ESRD. The study concluded that a high percentage of patients exposed to a structured PDEP start with a self-care RRT modality

STUDIES RELATED TO EFFECTIVENESS OF INFORMATION, EDUCATION AND COMMUNICATION ON KNOWLEDGE REGARDING DIALYSIS

Afrasiabifar A, Karimi Z, HassaniP., (2014) conducted an experimental study in Iran to examine the effectiveness of Roy's adaptation model-based patient education among 60 dialysis by using questionnaire based on the Roy's Adaptation Model(RAM).The study revealed that there were significant differences in the physiological and self-concept models. The study concluded that RAM based patient education could improve the patients adaptation in physiologic and self-concept modes.

Wong FK, Chow SK, Chan TM., (2014) conducted a randomized control trail on in china evaluation of a nurse-led disease management programme among chronic kidney disease patients. The study revealed that there was

significant difference in the outcomes measures of diet non-adherence , sleep, symptom, staff encouragement, overall health and satisfaction . The study concluded that chronic disease management programmes helps to optimize the use of different levels of skills and resources to bring about positive outcomes.

Reedy v , Symes F, Sethi N , Scally AJ, Scott J, Mumtaz R, (2014) conducted an experimental study in UK on the effectiveness of a structured, dietitian-led education program among 115 dialysis patients. The study revealed that education program significantly improved patients general knowledge of phosphate and of phosphate-binders.Study concluded that Nurses led educational initiatives is effective in enchancing patients knowledge.

Devins GM, Mendelssohn DC, Barre PE, Binik YM .,(2013) conducted an inception-cohort, prospective, randomized, controlled trail in Canada on pre dialysis psycho educational intervention (PPI) and coping styles influence time dialysis among 297 chronic kidney disease patients. The study revealed that there is significant association with dialysis therapy and depression. It concluded that PPI extends time to dialysis therapy in patients with progressive CKD.

Shi YX, Fan XY, Han HJ, Hou YH (2011) China conducted a study to assess the effectiveness of a nurse led intensive educational programme on Chronic Kidney Failure with hyperphosphataemia. The study revealed that there were statistically significant differences between the study groups in decline in serum phosphorus and calcium phosphorus product levels and improvement in patients general knowledge three months post intervention, and these differences sustained until the end of the

study. They concluded that Nurse led intensive educational programme plays an important role in the control of hyperphsphataemia among patients with Chronic Renal Failure.

Chithra (2011) on effectiveness of structured teaching programme on awareness regarding management of dialysis among 60 Chronic Renal Failure patients. The study findings revealed that awareness regarding management of dialysis, in pre-test was low with only 10 (12%). After the structured teaching programme it was increased to 28%. The study concluded the structured teaching programme was effective in improving management of dialysis among Chronic Renal Failure patients.

Richard E Jenson et al (2010) conducted an experimental study on the effectiveness of structured teaching programme on knowledge regarding management of dialysis among 200 Chronic Renal Failure patients by using simple random sampling technique. Data was collected by using structured interview questionnaire. The study findings revealed that majority of patients 70.9% were not aware about management of dialysis, and only 29.1% patients had moderate knowledge regarding management of dialysis. It was concluded that the educational programme was helpful for upgrading patients knowledge in post-test.

Kicker et al (2010) conducted an experimental study on the effectiveness of planned teaching programme on management of dialysis among 120 Chronic Renal Failure patients by using simple random sampling technique. Data was collected by using structured interview questionnaire. The study findings revealed that after

teaching programme Chronic Renal Failure patients gained adequate and moderately adequate knowledge regarding management of dialysis. It was concluded that the teaching programme was effective to improve the Chronic Renal Failure patients knowledge.

Rosen Man (2008) conducted a descriptive study on knowledge regarding dialysis among the patients in South East region by purposive sampling technique. Data was collected by using structured interview questionnaire. The study result decided that the most of patients reported being unaware about the dialysis. It was concluded that there was a need for education programme regarding the management of dialysis.

Hejaili F F, Tamim H, Ghamdi GA, Flaiw AI, Katheri AM, Al-Khader AA., (2007), conducted a cross sectional study in kingdom of Saudi Arabia to assess the level of health awareness of patients on renal replacement therapy among 143 patients by using questionnaire. The study revealed that the level of health awareness is lower than satisfactory. The study concluded that the level of education seems to be a contributory factor.

CONCEPTUAL FRAME WORK

GENERAL SYSTEMS THEORY LUDWIG VON BERTALANFFY (1968)

Polit and Hungler (1995) states that a conceptual frame work is the interrelated concepts or abstractions that are assembled together in the relevance to the common theme. It is a device that helps to stimulate research and extension of knowledge by providing both directions and impetus.

The present study aims to evaluate the effectiveness of Information Education and Communication on knowledge regarding management of dialysis among patients with Chronic Renal Failure. The conceptual framework for this study was based on modified Ludwig Von Bertalanffy's open System theory (1968).

A system is set of interacting parts or components within a boundary that interact among various components to achieve the goal. A system can be individual, families or communities. The fundamental components of a system are matter, energy and communication without any one of these component, system does not exist. The system continuously monitors self and the environment for information to guide its own operation.

There are two types of system

A Closed system

A closed system does not exchange energy, matter or information with its environment. It receives no input from the environment and gives no output to the environment.

A Open system

Energy matter and information move into and out of the system through thesystem through the system boundary. All living systems such as plants, animals, people, families and communities are open system, since their survival depends on a continuous exchange of energy. They are therefore , in a constant state of change. For its functioning an open system depends on the quality and the quantity of its input, output and feedback.

In the present study, the concepts can be interpreted as follows,

Open system

In the present study individual is considered as open system.

Input

The information that enters into the system from the environment through its boundaries.

In this study input is the assessment of knowledge regarding management of dialysis among

patients with Chronic Renal Failure by using structured interview questionnaire with a effect of demographic variables and the Information, Education and Communication.

Throughput

Is the operation phase. It is the process that allows the input to be changed as output in *s*uch a way that it can be readily used by the system.

In this study during the activity phase the investigator administer Information, Education and Communication.

Output

Is any information is continuously processed through the system and enters the environment through system boundaries.

Output is improvement in level of knowledge, which is reassessed by using the same structured interview questionnaire, after 7 days of IEC.

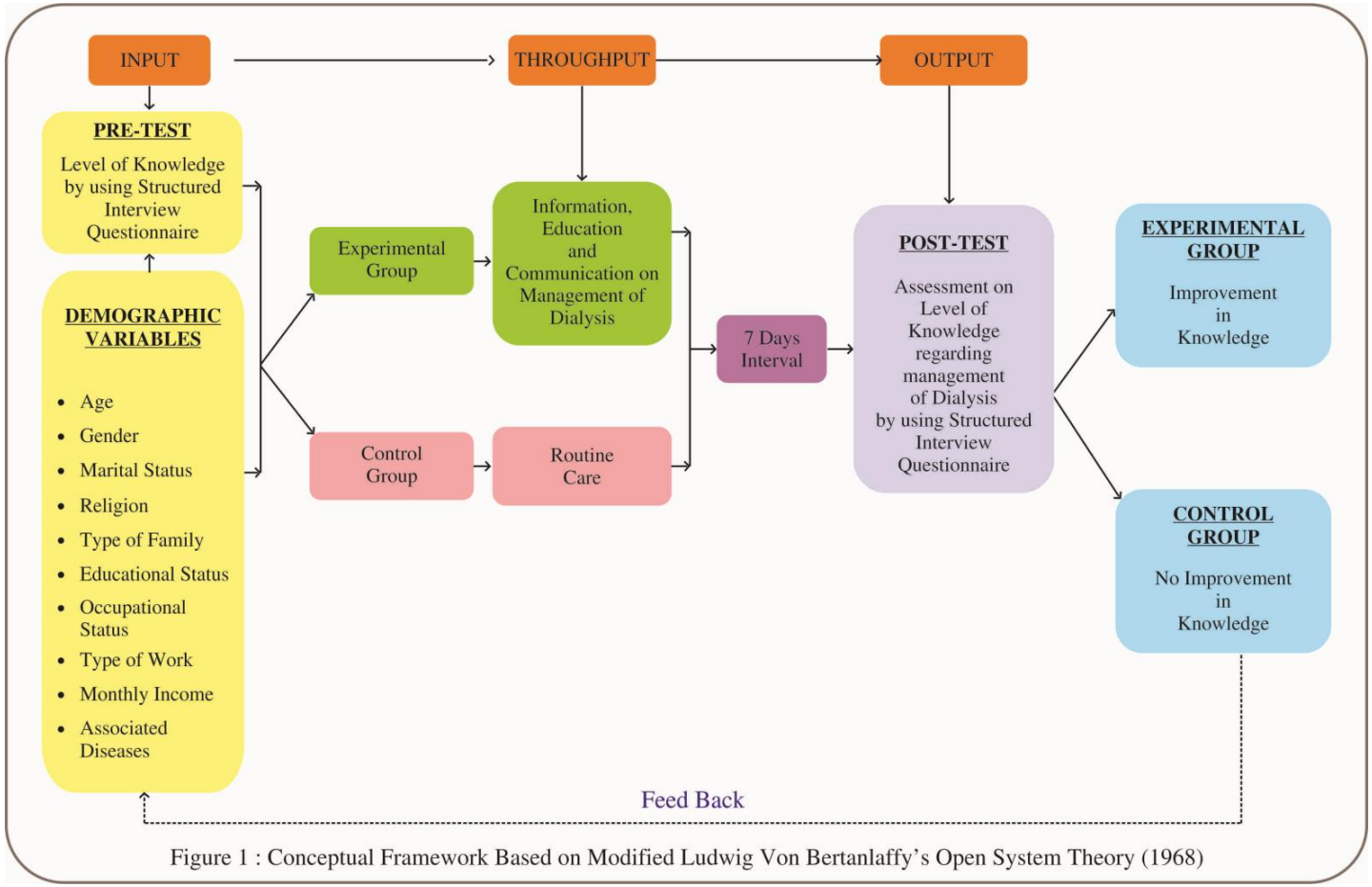

Figure 1 : Conceptual Framework Based on Modified Ludwig Von Bertanlaffy's Open System Theory (1968)

CHAPTER III

RESEARCH METHODOLOGY

Methodology deals with the research approach, research design, setting of the study, study population, criteria for selection of sample, sample size, sampling technique, development and description of the tool, pilot study, scoring procedure for the data collection, procedure for data analysis and protection of human rights.

According to polit and hungler., (2011) research methodology refers to investigating the ways of obtaining, organizing and analyzing data.

RESEARCH APPROACH

Polit and Hungler., (2011) defined the research approach as " a general set of orderly discipline procedure used to acquire information."

A quantitative evaluative approach was used to evaluate the effectiveness of Information Education and Communication on knowledge regarding management of dialysis.

RESEARCH DESIGN

Nancy Burns, Susan K Groove .,(2005) defined research design as a blue print conducting the study maximize control over factors that could interfere with validity

of the findings.The research design guides the researcher in planning and implementing the study in a way that is most likely to achieve the intended goal.

A quasi experimental pre test post test design with control group was chosen for this study without randomization. Observations were made before and after administering the Information, Education and Communication.

The diagrammatical representation of research design is given below :

GROUP	PRE TEST	STRUCTURED TEACHING PROGRAMME	PRE TEST
	DAY-1	DAY-2	DAY-9
Experimental	X1	o	X3
Control	X2	***	X4

Key

X1 , X2 = Pre test assessment of knowledge in experimental and control group respectively.

o = Information, Education and Communication on management of dialysis.

X3 , X4 = post test assessment of knowledge in experimental and control group respectively.

*** = No intervention.

X3-X1

X4-X2 } = Effectiveness of Information, Education and Communication

X3-X4 on management of dialysis

VARIABLES

Dependent variable : Knowledge regarding management of management of dialysis

Independent variable : Information Education and Communication on management of dialysis.

Extraneous variable : Age , sex, gender ,marital status, religion, type of family, educational Status, occupational status ,type of work, monthly income, associated disease.

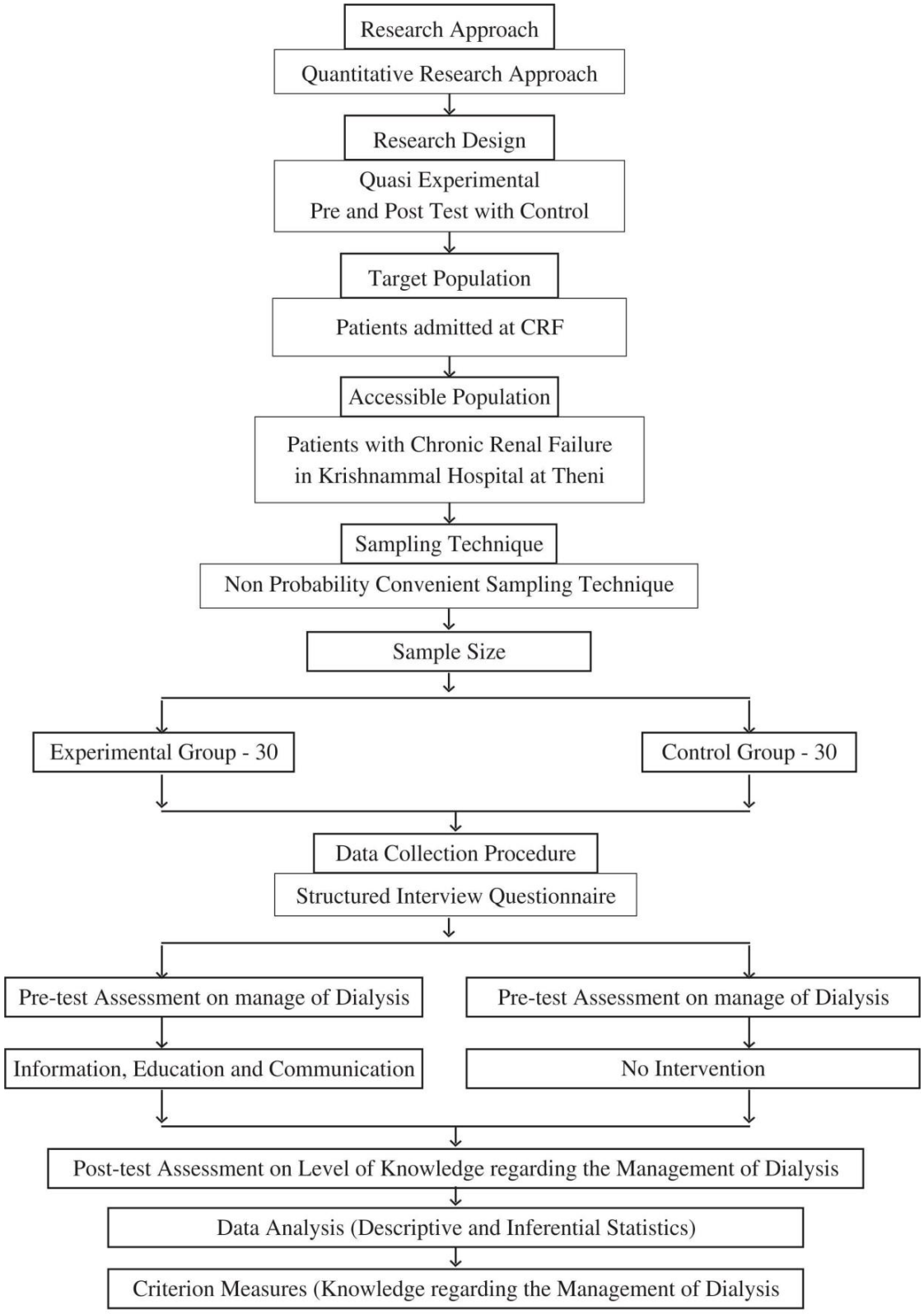

Fig 1 : The Schematic Representation of Research Methodology

SETTING OF THE STUDY

Polit and Hungler (2004) stated that the physical location and conditions in which data collection has taken place in a study is the setting of the study.The study was conducted in Krishnammal memorial hospital at Theni. It was a 150 bedded hospital with multi speciality services.The hospital has separate nephrology department and has two dialysis units with 7 beds in each unit. The different departments in the hospital are pediatric nephrology, medical surgical, gynecology, orthopaedics ,neurology, gastrology, and urology. In the outpatient and inpatient department of nephrology , 150 cases are registered monthly.

POPULATION

According to Polit and Hungler, (2005) " A population is the entire aggregation of cases in which a researcher is interested".

The target population is the aggregation of cases about which the researcher would like to make generalizations. An accessible population is the section of the target population to which the researcher has reasonable access. The target population for this study was patients with Chronic Renal Failure.The accessible population for this study includes patients with Chronic Renal failure in Krishnammal memorial hospital at Theni.

SAMPLE

According to Polit and Hungler(2005) 'the sample consist of a subset of population be selected to participate in a research study".

The sample size for the study was 60. The samples were selected from krishnammal memorial hospital at Theni. 30 samples were assigned to each in experimental and control group

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria:

- The patients undergoing hemodialysis and peritoneal dialysis.
- Both male and female patients.
- Patients who are willing to participate in the study.
- Patients able to read and write Tamil /English.

Exclusion criteria :

- Patients with Acute renal failure.
- Patients who are critically and terminally ill with Serious complications.
- Patients who are blind deaf and dumb.
- Mentally ill patients.
- Patients with altered sensorium.
- Patients who have no formal education.

SAMPLING TECHNIQUE

According to Polit and Hungler(2005) “sampling techniques is the process of selecting a portion of the population to represent the entire population”.

The sample for this study is non probability convenient sampling technique. The total sample size is 60. 30 samples were assigned to each in experimental and control group .Every first sample was assigned to experimental group and every second sample was assigned to control group based on inclusion criteria.

DEVELOPMENT OF THE TOOL

Treece and Treece (1986) emphasized that the instrument selected in research should as far as possible be the vehicle that could best obtain data for drawing conclusion pertinent to the study.

The research instrument was developed in English after an extensive review of literature and experts opinion. It was translated in to Tamil by language expert. The structured interview questionnaire was used to assess the level of knowledge regarding management of dialysis.

DESCRIPTION OF THE TOOL

Part I

Deals with demographic variables of patients with Chronic Renal Failure (Age, gender, educational status, type of family, occupation status, type of work, monthly income, religion, marital status and other associated disease condition).

Part II

Deals with structured interview questionnaire on knowledge regarding management of dialysis. It consists of 30 multiple choice questions. Each item carries

the minimum score of ‘0’ and maximum score of ‘1’. The total maximum score is about 30 marks and minimum score is ‘0’.

SCORING PROCEDURES

Part II

Regarding questionnaire on knowledge regarding management of dialysis , each correct answer carried ‘1’ mark and wrong answer carried ‘0’ mark. The total maximum score was ‘30’ and minimum score was ‘0’.

For the study purpose, the total score was classified as

0-7 - Inadequate knowledge

8-23 - Moderately adequate knowledge

24-30 - Adequate knowledge

INFORMATION, EDUCATION AND COMMUNICATION

Information, Education and Communication was developed on management of dialysis by reviewing literature and obtaining experts opinion. The IEC was 45 minutes duration and comprised the general information, general and specific objectives, content, teacher-earner activities, AV aids and evaluation. The content of IEC were meaning of management of dialysis , goals, purposes, role of family members, summary and conclusion. The method of teaching adopted was lecture cum discussion. The visual aid used was CD. The IEC was submitted to experts for establishing content validity.

VALIDITY AND RELIABILITY

Content Validity

According to Burns and Grove., (2005) “the validity of an instrument is the determination of the extent to which the instrument reflect the abstract construct that is being examined”.

Five experts in nursing and two experts in medicine evaluated the content validity of the instruments. Nursing experts were medical surgical nursing and medical experts were from nephrology department.

The validity index was

Part I - 0.92

Part II - 0.96

RELIABILITY OF INSTRUMENT

According to De Vos., (1998) reliability refers to “the accuracy and consistency of a measuring instrument”. An instrument can be considered reliable if it yields similar results on separate occasions.

The reliability co-efficient was calculated by split half method and co-efficient correlation score was 0.9 and found highly reliable.

PILOT STUDY

Polit and Beck., (2004) denote that “pilot study is a small-scale version or trail run done in preparation of a major study”.

The researcher conducted pilot study among '10' patients with Chronic Renal Failure in St. Mary's Hospital, Podanur, Coimbatore after obtaining the written permission. The purpose was to find out the feasibility of the study. It was found to be feasible

DATA COLLECTION PROCEDURE

The data collection procedure was for stipulated period of 6 weeks in Krishnammal memorial hospital at Theni. Permission to conduct the study was obtained from the Chairman of the hospital. The samples were informed by the researcher about the nature and purpose of the study. The informed consent was also obtained as per rule on the 1st day. On the same day (Day 1) structured interview questionnaire was administered to assess the pre test level of knowledge regarding management of dialysis. It took 45 minutes collect data from each sample, including experimental and control group. On the next day (Day 2) Information Education and Communication on management of dialysis was given to experimental group with help of laptop and CD in their room separately. On Day 9, same questionnaire was administered to assess the post test knowledge regarding management of dialysis among both groups.

PLAN FOR DATA ANALYSIS

The demographic variables were analyzed by using descriptive statistics (Frequency and Percentage). The level of knowledge was analyzed by using descriptive statistics (mean. Standard deviation). The effectiveness on IEC on management of dialysis was analyzed by using inferential statistics (paired 't' test,).

PROTECTION OF HUMAN RIGHTS

The study was conducted after the approval of research committee of the college. The nature and purpose of this study was explained to the health care personnel involved. The written consent was obtained from the study participants. Assurance was given to the study samples that the anonymity of each individual would be maintained strictly. IEC was administered to the control group after the post test to overcome the ethical issues.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with analysis and interpretation of data collected from 60 clients with Chronic Renal Failure in order to evaluate the effectiveness of Information Education and Communication on knowledge regarding management of dialysis

The purpose of the analysis was to reduce the collected data to an intelligible and interpretable form, so that the relation of the research problem can be studied and tested.

According to Polit and Hungler, (2005) analysis is the method of organizing, sorting and scrutinizing data in such a way that research question can be answered.

The analysis and interpretation of data was based on data collected through structured self administered questionnaire on knowledge regarding management of dialysis. The results were computed by using descriptive (Mean, Frequency, Percentage Distribution and Standard Deviation) and inferential statistics (Paired 't' Test and Chi Square) and the results were computed.

The study findings are presented in sections as follows :

Section I : Data on demographic variables of clients with Chronic Renal Failure.

Section II : Data on level of knowledge regarding management of dialysis among clients with Chronic Renal Failure.

Section III : Data on effectiveness of Information Education Communication on knowledge regarding management of dialysis among clients with Chronic Renal Failure.

Section IV : Data on association between level of knowledge regarding management of dialysis among clients with Chronic Renal Failure and their selected demographic variables.

SECTION I : DATA ON DEMOGRAPHIC VARIABLES OF PATIENTS WITH CHRONIC RENAL FAILURE

Table: 1.1

Frequency and Percentage Distribution of Patients with Chronic Renal Failure According to their Selected Demographic Variables in Experimental group.

N=30

S. No	Demographic variables	Frequency (n)	Percentage (%)
1	Age (in years)		
	a) 20-35	9	30
	b) 36-50	5	17
	c) 51-65	7	23
	d) 65 and above	9	30
2	Gender		
	a) Male	13	43
	b) Female	17	57
3	Marital status		
	a) Unmarried	1	3
	b) Married	16	53
	c) Widow/ Widower	8	27
	d) Separated/ Divorced	5	17
4	Religion		
	a) Hindu	10	33
	b) Muslim	9	30
	c) Christian	11	37
	d) Others	0	0
5	Type of family		
	a) Joint	17	57
	b) Nuclear	13	43

(Contd..)

S. No	Demographic variables	Frequency (n)	Percentage (%)
6	Educational Status		
	a) Primary	5	16
	b) Secondary	2	7
	c) Higher secondary	14	47
	d) Graduate/ equivalent	9	30
7	Occupational status		
	a) Unemployed	0	0
	b) Govt employed	2	7
	c) Private employed	19	63
	d) Self employed	9	30
8	Type of work		
	a) Sedentary work	9	30
	b) Moderate work	21	70
	c) Heavy work	0	0
9	Family monthly income		
	a) Rs.3001/-Rs.5000/-	0	0
	b) Rs.5001/-Rs.10000/-	10	33
	c) Rs.10001/- and above	20	67
10	Do you have any associated diseases		
	a) Yes	15	50
	b) No	15	50

Table : 1.1 reveals that with regard to age, 9(30%) were in age group of 20-35 years, 5(17%) were in age group of 36-50 years, 7 (23%) were in the age group of 51-65 years and 9(30%) were in the age group of 65 years and above.

Regarding gender, 13(43%) were male and 17(57%) were female.

Regarding marital status, most of them, 1(3%) were unmarried, 16 (53%) are married, 8(27%) are widow/ widower, 5(17%) are separated/ divorced.

Regarding religion, most of them 10(33%) were hindu , 9(30%) were muslim, 11(37%) were Christian.

Regarding the type of family, most of them 17(57%) are joint family,13(43%) are belongs to nuclear family.

Regarding educational status 5(16%) are primarily educated ,2(7%) are secondarily educated, 14(47%) had done higher education, 9(30%) are completed graduate.

Regarding occupational status 2(7%) were government employed, 19(63%) were private employed, 9(30%) were self employed.

Regarding type of work 9(30%) were sedentary workers, 21(70%) were moderate workers.

Regarding family income 10(33%) were earning Rs.5001-Rs.10000/-, 20(67%) were earning above Rs.10001/-.

It is inferred that, most of the patients with chronic renal failure belonged to age group 36-50 years female, married, Christian, joint family, higher education, private employed, moderate work, family monthly income above Rs.10001,has no associated diseases

Table1.2

Frequency and Percentage Distribution of Patients with Chronic Renal Failure According to their Demographic Variables in Control Group

N=30

S. No	Demographic variables	Frequency (n)	Percentage (%)
1	Age (in years)		
	a) 20-35	6	20
	b) 36-50	13	43
	c) 51-65	9	30
	d) 65 and above	2	7
2	Gender		
	a) Male	17	57
	b) Female	13	43
3	Marital status		
	a) Unmarried	7	23
	b) Married	19	64
	c) Widow/ Widower	4	13
	d) Separated/ Divorced	0	0
4	Religion		
	a) Hindu	16	54
	b) Muslim	7	23
	c) Christian	7	23
	d) Others	0	0
5	Type of family		
	a) Joint	19	63
	b) Nuclear	11	37

(Contd..)

S. No	Demographic variables	Frequency (n)	Percentage (%)
6	Educational Status		
	a) Primary	3	10
	b) Secondary	7	23
	c) Higher secondary	11	37
	d) Graduate/ equivalent	9	30
7	Occupational status		
	a) Unemployed	3	10
	b) Govt employed	8	27
	c) Private employed	10	33
	d) Self employed	9	30
8	Type of work		
	a) Sedentary work	12	40
	b) Moderate work	18	60
	c) Heavy work	0	0
9	Family monthly income		
	a) Rs.3001-Rs.5000/-	0	0
	b) Rs.5001-Rs.10000/-	14	47
	c) Rs.10001/- and above	16	53
10	Do you have any associated diseases		
	a) Yes	16	53
	b) No	14	47

Table :1. 2 reveals that with regard to age, 6(20%) were in age group of 20-35 years, 13(43%) were in age group of 36-50 years, 9 (30%) were in the age group of 51-65 years and 2(7%) were in the age group of 65 years and above.

Regarding gender, 17(57%) were male and 13(43%) were female.

Regarding marital status, most of them, 7(23%) were unmarried, 19 (64%) are married, 4(13%) are widow/ widower.

Regarding religion, most of them 16(54%) were hindu , 7(23%) were muslim, 7(23%) were Christian.

Regarding the type of family, most of them 19(63%) are joint family,11(37%) are belongs to nuclear family.

Regarding educational status 3(10%) are primarily educated ,7(23%) are secondarily educated, 11(37%) had done higher education, 9(30%) are completed graduate.

Regarding occupational status, 3(10%) were unemployed, 8(27%) were govt employed, 10(33%) were private employed, 9(30%) were self employed.

Regarding type of work 12(40%) were sedentary workers, 18(60%) were moderate workers.

Regarding family income 14(47%) were earning Rs.5001-Rs.10000, 16(53%) were earning above Rs.10001.

Regarding associated disease 16(53%) have associated diseases , 14(47%) have no associated diseases.

It is inferred that, most of the patients with chronic renal failure in control group belonged to age group 36-50 years male, married, hindu, joint family, higher secondary, private employed, moderate worker, family monthly income is above 10000/- has associated diseases.

SECTION II : DATA ON ASSESSMENT OF LEVEL OF KNOWLEGDE REGARDING MANAGEMENT OF DIALYSIS AMONG PATIENTS WITH CHRONIC RENAL FAILURE

Table: 2.1

Distribution of Knowledge Regarding Management Of Dialysis Among Patients with Chronic Renal Failure in Experimental Group

N=30

S. No.	Level of knowledge	Experimental Group			
		Pre Test		Post Test	
		n	%	n	%
1.	In adequate	25	83.3	0	0
2.	Moderately Adequate	5	16.7	2	6.7
3.	Adequate	0	0	28	93.3

Table :2.1 shows that, among experimental group, 25(83.3%) had inadequate knowledge and 5(16.7%) had moderately adequate knowledge regarding management of dialysis during pre-test and 28(93.3%) had adequate knowledge and 2(6.7%) had moderately adequate knowledge regarding management of dialysis during post-test.

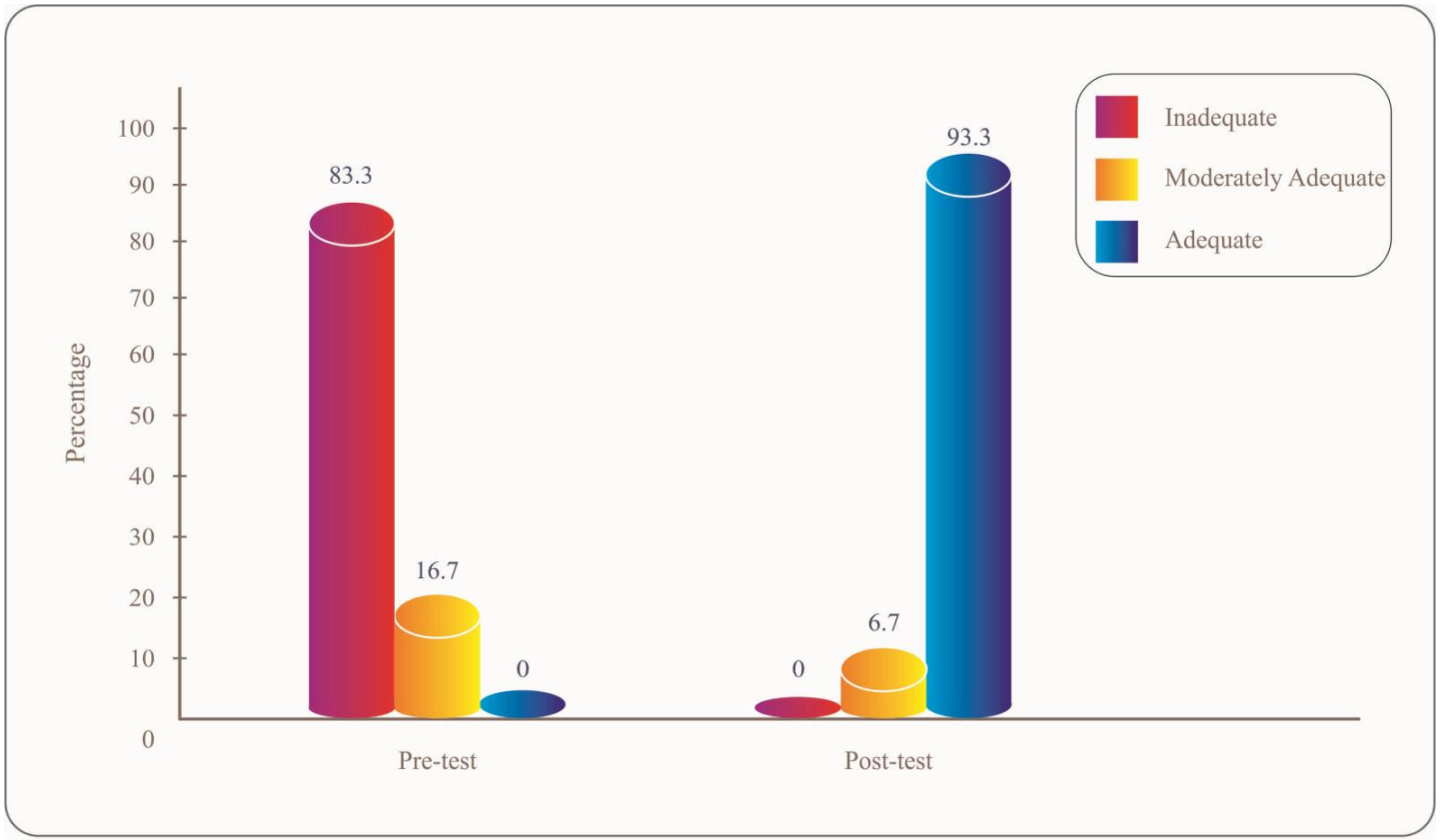

Fig 3 : Level of Knowledge regarding Management of Dialysis in Experimental Group.

Table: 2.2

Distribution of Knowledge Regarding Management Of Dialysis Among Patients with Chronic Renal Failure in Control Group

N=30

S.No.	Level of Knowledge	Control Group			
		Pre Test		Post Test	
		n	%	n	%
1.	In adequate	25	83.3	24	80
2.	Moderately Adequate	5	16.7	6	20
3.	Adequate	0	0	0	0

The above table 2.2 reveals that, among control group, 25(83.3%) had inadequate knowledge and 5(16.7%) had moderately adequate knowledge regarding management of dialysis during pre-test and 24(80%) had inadequate knowledge 6(20%) had moderately adequate knowledge regarding management of dialysis during post-test.

It is inferred that majority of the samples in both experimental and control group had inadequate knowledge regarding management of dialysis during pretest and majority of the samples only in experimental group had adequate knowledge regarding management of dialysis during post-test.

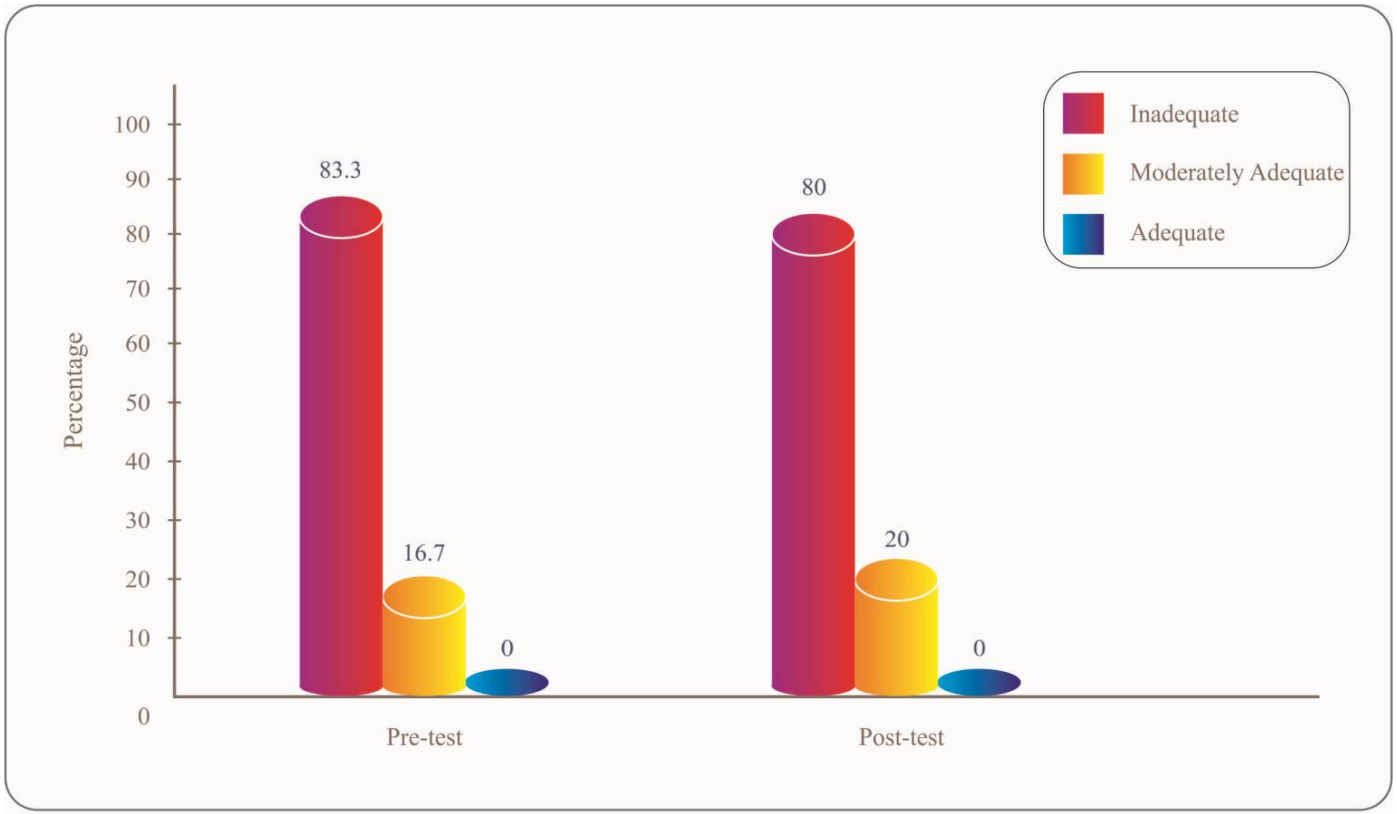

Fig 4 : Level of Knowledge regarding Management of Dialysis in Control Group.

SECTION III : DATA ON EFFECTIVENESS OF INFORMATION EDUCATION AND COMMUNICATION ON MANAGEMENT OF DIALYSIS

Table : 3

Mean, Standard Deviation, Mean Difference and 't' Value of Pre-test, Post-test Score on Knowledge Regarding Management Of Dialysis among Patients with Chronic Renal Failure in Experimental Group and Control Group.

N=30

S. No.	Group	Mean	SD	MD	't' value
1	Experimental	.			
	Pre-test	11.5	3.6	14.1	18.35^{***}
	Post-test	25.6	2.5		
2	Control				
	Pre-test	8.5	2.8	2.1	2^{NS}
	Post-test	10.6	2.8		

*** - Significant at $p < 0.01$ level.

^{NS} not significant.

Table 3.1 reveals that among experimental group the pre test knowledge mean was 11.5, standard deviation was 3.6 and post-test mean 25.6, standard deviation 2.5 and mean difference was 14.1, the obtained 't' value was 18.35. It was significant at $p<0.01$ level. Hence the stated hypothesis was accepted.

It also reveals that, among control group, the pre-test knowledge mean was 8.5, standard deviation 2.8, the post-test mean 10.6, standard deviation 2.8, the mean difference was 2.1. The obtained ‘t’ value was 2 and it was not significant . Hence the stated hypothesis was not accepted.

It is inferred that Information Education and Communication was highly effective among experimental group in improving the knowledge regarding management of dialysis that promotes the quality of life among patients with Chronic Renal Failure.

The increase in the knowledge among control group in post test may be due to the unstructured information given to the samples by the health care personnel as a routine care.

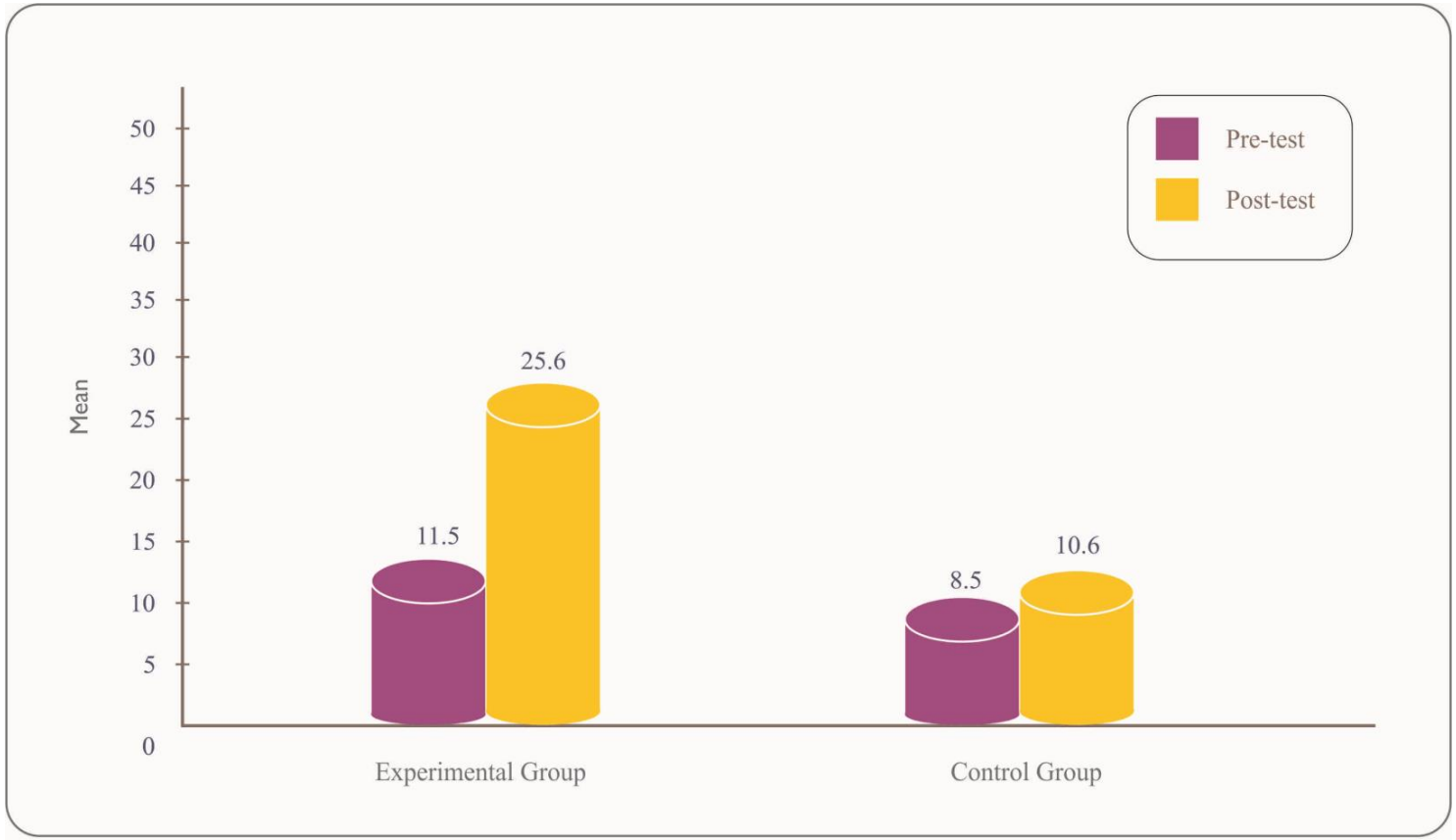

Fig 5 : Mean Value of Knowledge regarding Management of Dialysis among Patients with Chronic Renal Failure in Experimental and Control Group.

SECTION IV : DATA ON ASSOCIATION BETWEEN LEVELS OF KNOWLEDGE AMONG PATIENTS WITH CHRONIC RENAL FAILURE AND THEIR SELECTED DEMOGRAPHIC VARIABLES.

Table : 4

Frequency, Percentage and χ^2 Value on Level of Knowledge Regarding Management Of Dialysis Among Patients with Chronic Renal Failure with their Selected Demographic Variables.

N=60

S. NO.	Demographic variables	Level of knowledge						χ^2 Value
		Inadequate Knowledge		Moderately Adequate Knowledge		Adequate Knowledge		
		n	%	n	%	n	%	
1	Age (in years)							
	a) 20-35	14	23	1	7	0	0	14.03*
	b) 36-50	15	25	3	5	0	0	df-3
	c) 51-65	11	25	5	8.3	0	0	
	d) 65 and above	10	17	1	7	0	0	
2	Gender							
	a) Male	24	40	6	10	0	0	2.348^{NS}
	b) Female	26	43	4	7	0	0	df-1
3	Marital Status							
	a) Unmarried	5	8.3	3	5	0	0	3.16^{NS}
	b) Married	31	52	4	7	0	0	df-3
	c) widow/widower	10	17	2	3.3	0	0	
	d) Sepertaed/Divorced	4	7	1	7	0	0	

S.NO	Demographic variables	Level of knowledge						χ^2 Value
		Inadequate Knowledge		Moderately Adequate Knowledge		Adequate Knowledge		
		N	%	n	%	n	%	
4	Religion							
	a) Hindu	22	37	4	7	0	0	7.59^{NS}
	b) Muslim	13	22	3	5	0	0	df-2
	c) Christian	15	25	3	5	0	0	
	d) others	0	0	0	0	0	0	
5	Type of family							
	a) Joint	30	50	6	10	0	0	2.348^{NS}
	b) Nuclear	20	33.3	4	7	0	0	df-1
6	Educational status							
	a) Primary	6	10	2	3.3	0	0	
	b) Secondary	5	8.3	4	7	0	0	0.12^{NS}
	c) Higher secondary	23	38.3	2	3.3	0	0	df-3
	d) Graduate/ equivalent	16	27	2	3.3	0	0	
7	Occupational Status							
	a) Unemployed	2	3.3	1	7	0	0	
	b) Govt employed	8	13.3	2	3.3	0	0	5.29^{NS}
	c) Private employed	25	42	4	7	0	0	df-3
	d) Self employed	15	25	3	5	0	0	
8	Type of work							
	a) Sedentary work	13	22	8	13.3	0	0	
	b) Moderate work	37	62	2	3.3	0	0	14.73*
	c) Heavy work	0	0	0	0	0	0	df-2
9	Family monthly income							
	a) Rs.3000/-Rs.5000/-	0	0	0	0	0	0	4*
	b) Rs.5001/-Rs.10000/-	20	33.3	4	7	0	0	df-1
	c) Rs.10001/-above	30	50	6	10	0	0	

S.NO	Demographic variables	Level of knowledge						χ^2 Value
		Inadequate Knowledge		Moderately Adequate Knowledge		Adequate Knowledge		
		n	%	n	%	n	%	
10	Other associated disease							
	a) Yes	30	50	1	7	0	0	0.75^{NS}
	b) No	20	33.3	9	15	0	0	df-1

* - Significant at $p < 0.05$ level.

^{NS} not significant.

Table 4 : reveals that, with regard to age, among 20-35 years 14(23%) had inadequate knowledge, 1(7%) had moderately adequate knowledge. Among 36-50 years 15(25%) had inadequate knowledge, 3(5%) had moderately adequate knowledge. Among 51-65 years 11(25%) had inadequate knowledge, 5(8.3%) had moderately adequate knowledge. Above 65 years 10(17%) had inadequate knowledge, 1(7%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value 14.03 was significant at $p<0.05$ level. Hence the hypothesis was accepted.

With regard to gender, among male 24(40%) had inadequate knowledge, 6(10%) had moderately adequate knowledge. Among female 26(43%) had inadequate knowledge, 4(7%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value 2.348 was not significant. Hence the hypothesis was not accepted.

With regard to marital status, among unmarried 5(8.3%) had inadequate knowledge, 3(5%) had moderately adequate knowledge. Among married 31(52%) had inadequate knowledge, 4(7%) had moderately adequate knowledge. Among widow/widower 10 (17%) had inadequate knowledge, 2(3.3%) had moderately adequate knowledge. Among separated/divorced 4(7%) had inadequate knowledge, 1(7%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value3.16 was not significant. Hence the hypothesis was not accepted

With regard to religion, among hindu 22(37%) had inadequate knowledge, 4(7%) had moderately adequate knowledge. Among muslim 13(22%) had inadequate knowledge, 3(5%) had moderately adequate knowledge. Among christian 15(25%) had inadequate knowledge, 3(5%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value was 7.59 was not significant. Hence the hypothesis was not accepted.

With regard to type of family, among joint family 30(50%) had inadequate knowledge, 6(10%) had moderately adequate knowledge. Among nuclear family 20(33.3%) had inadequate knowledge, 4(7%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value was 2.34 was not significant. Hence the hypothesis was not accepted.

With regard to educational status, among primary education 6(10%) had inadequate knowledge, 2(3.3%) had moderately adequate knowledge. Among secondary education 5(8.3%) had inadequate knowledge, 4(7%) had moderately adequate knowledge. Among higher secondary education 23(38.3%) had inadequate

knowledge, 2(3.3%) had moderately adequate knowledge. Among graduate/equivalent 16(27%) had inadequate knowledge, 2(3.3%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value was 0.12 was not significant. Hence the hypothesis was not accepted.

With regard to occupational status, among unemployed 2(3.3%) had inadequate knowledge, 1(7%) had moderately adequate knowledge. Among government employed 8(13.3%) inadequate knowledge,2(3.3%) had moderately adequate knowledge . Among private employed 25(42%) had inadequate knowledge, 4(7%) had moderately adequate knowledge. Among self employed 15(25%) had inadequate knowledge 3(5%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value 5.29 was not significant. Hence the hypothesis was not accepted.

With regard to type of work among sedentary worker 13(22%) had inadequate knowledge, 8(13.3%) had moderately adequate knowledge. Among moderate worker 37(62%) had inadequate knowledge, 2(3.3%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value was 14.73 significant to $p<0.05$ level. Hence the hypothesis was accepted.

With regard to family monthly income among Rs.5001-Rs.10000/- 20(33.3%) had inadequate knowledge, 4(7%) had adequate knowledge. Among Rs.10001-above 30(50%) had inadequate knowledge, 6(10%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value was 4 significant to $p<0.05$ level. Hence the hypothesis was accepted.

With regard to other associated diseases, among associated disease 30(50%) had inadequate knowledge, 1(7%) had moderately adequate knowledge. Among no associated diseases 20(33.3%) had inadequate knowledge, 9(15%) had moderately adequate knowledge regarding management of dialysis. The obtained χ^2 value is 0.75 is not significant. Hence the hypothesis is not accepted.

It is inferred that there was a significant association between the knowledge regarding management of dialysis among clients with Chronic Renal Failure with their selected demographic variables such as age, type of work, family monthly income, except gender, marital status, religion, type of family, educational status, occupational status, and other associated diseases. Hence the stated hypothesis was accepted for age, type of work, family monthly income. The stated hypothesis was rejected for gender, marital status, religion, type of family, educational status, occupational status and other associated diseases.

CHAPTER V

DISCUSSION

The aim of the present study was to evaluate the effectiveness of Information Education Communication on Knowledge regarding management of dialysis among patients with Chronic Renal Failure. The study was conducted by using quasi experimental pre-test and post-test design with control group. The Krishnammal hospital was selected for conducting the study. The sample size was 60, among which 30 subjects in experimental group and 30 subjects in control group were selected.

The responses were analyzed by using descriptive statistics (Mean, Standard deviation, Frequency, Percentage,) and inferential statistics (Paired 't' test and Chi-square). Discussion on the findings was arranged based on the objectives of the study.

The second objective of the study was to assess the existing knowledge regarding management of dialysis. The study findings revealed that among 30 patients in experimental group (Table 2.1) ,25(83.3%) had inadequate knowledge and 5(16.7%) had moderately adequate knowledge regarding management of dialysis during pre test. 2(6.7%) had moderately adequate knowledge, 28(93.3%) had adequate knowledge during post test. The study findings also revealed that among 30 patients in control group (Table 2.2), 25(83.3%) had inadequate knowledge and 5(16.7%) had moderately adequate knowledge regarding management of dialysis

during pre test. 24(80%) had inadequate knowledge, 6(20%) had moderately adequate knowledge during post test.

These findings were supported by Caroline Hird and Chris Upton, (2003) who conducted a qualitative approach with prospective descriptive study to establish patients understanding of the main aims of management of dialysis and the patients concerns regarding participation among Chronic Renal Failure patients through semi structured interviews. It revealed that the patients had limited understanding on management of dialysis.

The third objective was to evaluate the effectiveness of Information Education Communication on knowledge regarding management of dialysis. The study revealed that among experimental group, the pretest mean score of knowledge was 11.5, standard deviation 3.6 and post test mean was 25.6, standard deviation was 2.5 and the mean difference was 14.1. The obtained 't' value 18.35 was significant at $p<0.001$ level. Among control group, the pretest mean score of knowledge was 8.5, standard deviation 2.8 and post test mean was 10.6, standard deviation 2.8 and the mean difference was 2.1. The obtained 't' value 2 was not significant. Hence the hypothesis was not accepted.

These findings were supported by a study done by Akila, Lizzy and Latha, (2005) who assessed the effectiveness of Information Education and Communication on knowledge regarding management of dialysis. The results revealed that both experimental and control group have increased their knowledge during post significantly.

The fourth objective of the study was to determine the association between level of knowledge regarding management of dialysis among patients with Chronic Renal Failure and their selected demographic variables. The study findings revealed that there was a significant association between the knowledge regarding management of dialysis among patients with Chronic Renal Failure with their selected demographic variables such as age, type of work, family monthly income except gender, marital status, religion, type of family, educational status, occupational status, associated diseases.

CHAPTER VI

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents a brief account of the present study. Conclusions are drawn from the findings and implications of the result are stated. It also includes recommendations, implications for the nursing practice, nursing education, nursing administration and nursing research

SUMMARY

The present study was to evaluate the effectiveness of Information Education and Communication on knowledge regarding management of dialysis among patients with Chronic Renal Failure in selected hospital at Theni.

THE OBJECTIVES OF THE STUDY WERE

- To assess the pre test and post test level of knowledge regarding management of dialysis among patients with Chronic Renal Failure in experimental and control group.
- To evaluate the effectiveness of Information Education Communication on level of Knowledge regarding management of dialysis among patients in experimental group.
- To determine the association between pre test level of knowledge regarding management of dialysis among patients with Chronic Renal Failure and their

selected demographic variables such as age, gender, marital status, religion, type of family, educational status, occupational status, type of work, monthly income, associated diseases.

A quasi experimental pre test and post test design with control group was used to evaluate the effectiveness of Information Education and Communication on knowledge regarding management of dialysis.

A non-probability convenient sampling technique was adapted to select the sample with inclusion criteria. Sample size was 60, among which 30 samples in experimental and 30 samples in control group were selected.

A structured interview questionnaire was used for the study. It consisted of II parts.

Part I - Demographic variables of patients with Chronic Renal Failure.

Part II - 30 multiple choice questions to assess the level of knowledge regarding management of dialysis.

The content validity was obtained from experts in nursing and medicine. Reliability was calculated by using Split half method and suitable modifications were made where ever needed.

Data collection was done by using structured interview questionnaire. Pre test was done on the day '1' followed by administration of Information Education and Communication on management of dialysis next day on day 2 and post test was done after 7 days (Day 9).

The collected data was analyzed by using both descriptive statistics (mean, standard deviation, frequency, percentage) and inferential statistics (paired 't' test, and chi square) and result were drawn.

MAJOR STUDY FINDINGS

Major study findings include

- Among patients with chronic renal failure, most of them were 36-50 years, male and female, married , Muslim had high school education, were sedentary workers, living in joint family, private employed, monthly income above Rs.10,001 and had associated disease.
- With regard to the knowledge regarding management of dialysis among patients with Chronic Renal Failure both in experimental and control group, most of them had inadequate knowledge during pre-test and majority of the patients in experimental group had adequate knowledge during post-test.
- With regard to effectiveness of Information Education Communication on knowledge regarding management of dialysis among patients with Chronic Renal Failure, the post-test mean value was higher than the pre-test mean value of knowledge regarding management of dialysis.
- With regard to the association between knowledge regarding management of dialysis among patients with chronic renal failure with their selected demographic variables, the study findings revealed that there was a significant association between the knowledge regarding management of dialysis with age, type of work and family monthly income except age, gender, educational status, type of family, religion, marital status, and other associated diseases.

CONCLUSION

The main conclusion drawn from this present study was that most of the patients with Chronic Renal Failure had inadequate knowledge regarding management of dialysis. After the administration of Information Education and Communication on management of dialysis, their level of knowledge have increased significantly. They become very much familiar towards dialysis measures. After the completion of the study, subjects in control group were taught about management of dialysis.

It concluded that Information Education and Communication on knowledge regarding management of dialysis will be effective in improving the knowledge positively, so as to have a better quality of life among patients with Chronic Renal Failure.

IMPLICATIONS OF THE STUDY

Nursing Practice

- The findings of the current study can be kept as baseline for providing health education for patients with Chronic Renal Failure regarding management of dialysis.
- The Information Education and Communication can be incorporated in nursing as specific health education measures to teach about management of dialysis among patients with Chronic Renal Failure.
- The nursing personnel can be able to develop specific knowledge in providing health education regarding management of dialysis among patients with Chronic Renal Failure.

- This teaching module can be used for preventing further complication among patients with Chronic Renal Failure.
- The structured teaching module can be taught to all nurses who work in the renal care units to upgrade their knowledge on management of dialysis among patients with Chronic Renal Failure.
- The structured teaching module on management of dialysis can be prepared for the patients with any renal problems.

NURSING EDUCATION

- The structured teaching module can be taught to nursing students posted in renal care units to provide health education.
- The management of dialysis can be included in the nursing curriculum.

NURSING RESEARCH

- The study findings can be added to the research review regarding the management of dialysis.
- The study findings can be set as the base line data and further research can be conducted in same setting.

NURSING ADMINISTRATION

- In service education program can be organised for the nurses on management of dialysis measures.
- The nurse can become an effective coordinator and leader by arranging the health education programme at various settings.

LIMITATIONS

- Providing IEC on an individual basis in patient's free time was difficult for the researcher .
- The intervention is limited to Chronic Renal Failure patients only.

RECOMMENDATIONS

- The same study can be replicated using large sample.
- A similar study can be conducted for a longer duration.
- The same study can be conducted in different settings such as hospitals, community, dialysis centres.
- The comparative study can be conducted between rural and urban area.
- The study can be conducted among health care personnel.

REFERENCES

BOOK REFERENCES

- Ann Marriner Tomey, Martha Raile Alligood, (2006)., "NURSING THEORISTS AND THEIR WORK"., 6th ed., Missouri: Mosby Publication.
- Bare, G. Brenda, Smeltzer, C. Suzanna. (2005)., "BRUNNER AND SUDDARTHS TEXT BOOK OF MEDICAL SURGICAL NURSING"., 10th ed., Philadelphia: Lippincott publication.
- Basavanthappa, B.T. (2003)., "NURSING RESEARCH"., 1st ed., new Delhi: Jaypee brothers medical publishers (pvt) Ltd.
- Black. M. Joyce and Jane Hokanson Hawks, (2001)., "TEXT BOOK OF MEDICAL SURGICAL NURSING"., W.B Saunders Company publication.
- Dorothy. et.al, (1995)., "FUNDAMENTALS OF NURSING RESEARCH"., 2nd ed., USA: Jones and Bartlett publication.
- Gupta, G.S Kappor, (1990)., "FUNDAMENTALS OF MATHEMATICAL STATISTICS"., New Delhi: Sultan Chand publications.
- Kothari, C.R, (2004)., "RESEARCH METHODOLOGY METHODS AND TECHNIQUES"., 2nd ed., New Delhi : New age international (p) Ltd publishers.
- Lewis Sharon, M. Darkson Shannon Idolia, C. and Heitkemper, M.M. (2007)., "MEDICAL AND SURGICAL NURSING"., 6th ed., Missouri: Mosby publication.
- Mahajan, B.K, (1991)., "METHODS IN BIOSTATISTICS"., 5th ed., New Delhi: Jaypee Brothers Medical Publishers.

- Nancy Burns, Susan, K. Groov, (2005)., "THE PRACTICE OF NURSING RESEARCH"., 5th ed., Missouri: Elsevier Saunders publications.
- Nicola Thomas, (2002)., "RENAL NURSING"., 2nd ed., Elsevier Publication.
- Polit and Beck, (2004)., "NURSING RESEARCH PRINCIPLES AND METHODS"., 7th ed., Philadelphia: Lippincott Williams and Wikins company.
- Polit, F. Denise Hungler, (2001)., "NURSING RESEARCH PRINCIPLES AND METHODS"., 5th ed., Philadelphia: J.B. Lippincott publication.
- Sundar Rao, P.S.S. and Richard, (2004)., "AN INTRODUCTION TO BIOSTATISTICS"., 3rd ed., New Delhi: Prentice-Hall of India Private Ltd.
- Wesley, L. Rubby, (1992)., "NURSING THEORIES AND MODELS"., 2ed ed., Pennsylvania: Spring House Publication.
- Woo Keng Thye. (2010). CLINICAL NEPHROLOGY. (3rd ed) Singapore: World Scientific.

JOURNAL REFERENCES

- Elsever Science, (1997). Prevalence Of Chronic Renal Failure American Journal of Kidney Disease. pp. 540-553.
- Murtagh FE, (2007). The Prevalence Of Symptoms In Chronic Renal Failure. American journal of chronic kidney disease. 14(1) : 82 – 89.
- Sangamesh Nidagundi, (2007). Research Design., Nightingale Nursing Times. V(7) : 65 – 68.
- Neelam, (2007) Sampling choosing Participants, Nightingale Nursing Times. II (2): 60-61
- Murugesan Ram Prabhar. (2008). Epidemic of chronic kidney disease in india. Journal of Indian Medicine. Vol 19, Issue 5. Page no. 15.
- Acharya. V N (2011). diabetic and hypertensive nephropathy in india. Journal Association Of Physician. Vol 59, March 2011. Page no . 153.
- Jhamb M, (2008). Fatigue In patients Receiving Maintenance Dialysis American Journal Of Kidney Disease.
- Paul L. Kimmel. (2004). Psychosocial factors in adult chronic renal failure patients. American Journal Of Kidney Diseases. Volume 35, Issue 4, Supplement, April 2000. Page no. S132-S140
- Rajapurkar.M, Dabhi M. (2007). Burden of disease –prevalence and incidence of renal disease in india. Clinical Nephropathy. 2010. 74:9-12.

NET REFERENCES

- Drugs info.org, www.pubmed.pmid: 19370947. Dated on 18-3-2008.
- Effect of Hemodialysis in Chronic Renal Failure Patients . www.emedicine. medscape.com/article/777957. Dated on 20-09-2015
- Effectiveness of Dialysis among Chronic Renal Failure Patients, www .pubmed pmid: 12366488 Dated on 16-01-2006.
- Chronic Renal Failure and Renal Replacement Therapies, www.gildasclub.org. Dated on 17-12-2005.
- Encouraging trends. American society of Nephrology. www.medical newstoday. com/articles/79364.php. Dated on 18-3-2004
- Epidemiology of Chronic Renal Failure, http://www/current stage.com/end-stage-renal-disease/intro.htm. Dated on 19-6-2004.
- Holistic health, http://www.health.com/holistic.html. Dated on 22-5-2009.
- Kidney info.org.www.wikipedia.org/kidney Dated on 10-10-2009.
- Kidney disease http://www.netwellness.org/healthytopics/kidney/kidney disease. efm. Dated on 22-5-2009.
- Management of Chronic Renal Failure.www.hcvadvocate.org/ newsRev/2008/news Rev.279.html Dated on 25-08-2008
- NephrologyResearchhttp://www.cureresearch.com/e/end_stage_renal_diseae/ entro.htm. Dated on 18-03-2007.
- Prevalence of renal disease. http://www.ndt.oxfordjournals.org/cgi /full/23/12.Dated on 19-04-2007.
- Trends of End Stage Renal Disease, http://www.usrds.org/adr.htm. Dated on 13-8-2007.

- Cheng YY, Wong YF, Chu BY, Lam WO, Ho YW., (2003) Rehabilitating a Dialysis patient. Retrieved on (August 22, 2013) from http://www.pdiconnect.com/content/23/Supplement 2/S81.long.

- Goovaerts T, Jadoul M, Goffin E., (2005) Influence of a pre-dialysis education programme (PDEP) on the mode of renal replacement of therapy. Retrieved on (April 22,2013) from http://ndt.oxfordjournals.org/content/20/9/1842.long

APPENDIX A

ANNAI MEENAKSHI COLLEGE OF NURSING

Affiliated with the Tamil Nadu Dr. M.G.R Medical University, Chennai.
Approved by the Indian Nursing Council, New Delhi &
Tamil Nadu Nurses and Midwives Council, Chennai.

Madukkarai Market Road,
P.B. No. 4431
Industrial Estate Post,
COIMBATORE - 641 021.

0422 - 6562705
94421 75641
98435 24219

Phone : 0422 - 2675641, 2672705
Fax : 0422 - 2676016
Email : ceandct@dataone.in
ceandct@gmail.com
Website: www.annaimeenakshi.in

Ref. No. *Date : .....*

Requisition for Content Validity

From
Ms. Hepsiba Beula Rajam
II - Year M.Sc(N)
Annai Meenakshi College of Nursing,
Coimbatore – 21..

To

Respected Sir/Madam,

Sub: Requisition for expert opinion and suggestion for content validity of the tools – Reg.

I am a student of M.Sc., Nursing II year of Annai Meenakshi College of Nursing, Coimbatore, affiliated to The Tamil Nadu Dr. M.G.R. Medical University, Chennai. As a partial fulfillment of the M.Sc., Nursing programme. I am conducting a "A study to Evaluate the Effectiveness of Information, Education and Communication (IEC) on knowledge regarding management on Dialysis among Chronic Renal Failure patients in selected hospital at Theni". I am hereby enclosing the following :

1.Statement and objectives of the study
2.Hypothesis
3.Methodology
4.Tool
5.Intervention
6.Content Validity certificate.

Herewith I am submitting the developed tool for content validity and for expert opinion and possible suggestion. It will be grateful to you and request you to return the same to the undersigned at the earliest possible.

Thanking you,

Yours faithfully,

Place: Coimbatore
Date:

PRINCIPAL
Annai Meenakshi College of Nursing
COIMBATORE-641 021.

APPENDIX B

ANNAI MEENAKSHI COLLEGE OF NURSING

Affiliated with the Tamil Nadu Dr. M.G.R Medical University, Chennai.
Approved by the Indian Nursing Council, New Delhi &
Tamil Nadu Nurses and Midwives Council, Chennai.

Madukkarai Market Road,
P.B. No. 4431
Industrial Estate Post,
COIMBATORE - 641 021.

0422 - 6562705
94421 75641
98435 24219

Phone : 0422 - 2675641, 2672705
Fax : 0422 - 2676016
Email : ceandct@dataone.in
ceandct@gmail.com
Website: www.annaimeenakshi.in

Ref. No.

Date : .....

Certificate of Validation

This is to certify that the tool submitted by **Ms. Hepsiba Beula Rajam.** M.Sc., (N) II - Year student of Annai Meenakshi College of Nursing, Coimbatore, Tamil Nadu (Affiliated to The Tamil Nadu Dr. M.G.R. Medical University, Chennai) is validated by undersigned and can proceed with this tool and conduct the dissertation entitled conducting **Research study to Evaluate The Effectiveness of Information Education and Communication (IEC) on management of Dialysis among Chronic Renal Failure Patients in selected hospital at Theni".**

Place: Coimbatore

Signature

Date:

Name and Designation

APPENDIX C

LIST OF EXPERTS

CONSULTED FOR CONTENT VALIDITY

Dr. MANIKANDAN MD.,DM.,
Chief Nephrologist,
Krishnammal Memorial Hospital,
Theni.

Dr. VEEAKESARI MD.,
Consultant, Physician,
Shri Meenakshi Hospital,
Coimbatore.

Prof.Mrs. SHYLA ISSAC M.Sc., (N),
Principal,
Sri Abhirami College of Nursing,
Coimbatore.

Prof. Mrs. RAJALAKSHMI M.Sc.,(N)
Vice Principal,
Cheran College of Nursing,
Coimbatore.

Prof. Mrs. ESWARI M.Sc., (N)
Associate Professor,
Annai Meenakshi College of Nursing,
Coimbatore.

Prof. Mrs. REVATHI M.Sc., (N)
Assistant Professor,
Annai Meenakshi College of Nursing,
Coimbatore.

Mrs. SHANTHI PRIYA M.Sc., (N),

Assistant Professor,
KG College of Nursing,
Coimbatore.

APPENDIX D

ANNAI MEENAKSHI COLLEGE OF NURSING

Affiliated with the Tamil Nadu Dr. M.G.R Medical University, Chennai.
Approved by the Indian Nursing Council, New Delhi &
Tamil Nadu Nurses and Midwives Council, Chennai.

Madukkarai Market Road,
P.B. No. 4431
Industrial Estate Post,
COIMBATORE - 641 021.
Cell : 94421 75641, 98435 24219

Phone : 0422 - 2675641, 2672705, 6562705
Fax : 0422 - 2676016
Email : ceandct@dataone.in
ceandct@gmail.com
Website : www.annaimeenakshi.in

Ref. No.

Date : .....

December 16, 2015

To,

Respected Sir/Madam,

Mrs. Hepsiba Beula Rajam .T., is a student of II year M.Sc., (Nursing) in Annai Meenakshi College of Nursing, Coimbatore.She is Conducting a **Research study to Evaluate The Effectiveness of Information Education and Communication (IEC) on management of Dialysis among Chronic Renal Failure Patients in selected hospital at Theni ".**

This is for his research work to be submitted to the Tamil Nadu Dr. M.G.R. Medical University in partial fulfillment of the University requirement for the award of M.Sc., (Nursing) Degree.

As a part of her study she would like to collect the data from Chronic Renal failure clients from your esteemed hospital. The student will furnish project personally. The student will follow the norms, ethics and policies practiced in clinical setting will be followed by the students.

Thanking you,

Proceed

Yours faithfully,

PRINCIPAL
Annai Meenakshi College of Nursing
COIMBATORE-641 021.

ANNAI MEENAKSHI COLLEGE OF NURSING C.E.E.R.C.T. CBE-21.

Krishnammal Memorial Hospital
Theni - 625531.
293, Periyakulam Road

APPENDIX E

CONSENT FORM

Respected Sir / Madam

Good Morning! I am Mrs. T. Hepsiba Beula Rajam doing Second year M.Sc. Nursing in Annai Meenakshi College of Nursing at Coimbatore. I am doing a research regarding A Study to Evaluate the Effectiveness of Information Education and Communication on Management of dialysis among patients with Chronic Renal Failure. I kindly request your co-operation to complete my research. I assure you that you won't get any harm due to my research.

I am Mr. / Mrs. …….. I heard about the Effectiveness of Information Education and Communication on Management of dialysis among patients with Chronic Renal Failure from Mrs. T. Hepsiba Beula Rajam. She explained me the benefits of dialysis. I agree with this health education on Management of dialysis and this study project whole heartly.

Yours faithfully,

Place :

Date :

¾¦nr®¡if F

X¥òjš got«

kÂ¥Ã‰Fçnahnu,

tz¡f«, bršé. j. v¥Ágh Ãôyh uh#« v‹»w eh‹ m‹id Ûdh£Á bréèa® fšÿçæš bréèa® g£l nk‰go¥ò go¤J¡ bfh©oU¡»nw‹. lahiyÁì‹ nkyh©ik g‰¿ ehŸg£l ÁWÚuf nehahëfël« MuhŒ¢Á brŒaÎŸns‹. Ïj‰fhf eh‹ j§fsJ KG x¤JiH¥ig nf£L¡ bfhŸ»nw‹. nkY« Ïjdhš j§fS¡F vªj xU ghÂ¥ò« V‰glhJ v‹gij bjçé¤J¡ bfhŸ»nw‹.

ÂU. / ÂUkÂ. ..... v‹»w eh‹, j. v¥Ágh Ãôyh uh#« bréèa® mt®fëläUªJ lahiyÁì‹ nkyh©ik v‹»w ey¡fšé m¿Î¤Âwid nk«gL¤J« v‹gij bjçªJbfh©nl‹. Ïjdhš eh‹ Ïªj MuhŒ¢Áæš g§F bgw KG kdJl‹ r«kÂ¡»nw‹.

j§fŸ c©ikÍŸs,

Ïl« :

ehŸ :

APPENDIX G

PART-I

DEMOGRAPHIC VARIABLES

(Questionnaire on demographic variables of patients with chronic Renal failure)

Sample no :

Date:

1. Age in years

a.20-35years ( )

b.36-50years ( )

c.51-65years ( )

d. above 65 ( )

2. Gender

a. Male ( )

b. Female ( )

3. Marital status

a. Unmarried ( )

b. Married ( )

c. Widow / widower ( )

d. Divorced/ separated ( )

4. Religion

a. Hindu ( )

b. Muslim ( )

c. Christian ( )

d . Others ( )

5 .Types of family

a.Joint family ( )

b.Nuclear family ( )

6 .Educational status

a.No formal education ( )

b.Primary question ( )

c.Secondary question ( )

d.Higher secondary ( )

e.Graudate \ equivalent ( )

7.Occupational status

a. Unempolyed ( )
b. Government employee ( )
c. Private employee ( )
d. Self employed ( )

8.Type of work

a.Sedentary work ( )
b.Moderate work ( )
c.Heavy work ( )

9.Family monthly income

a.Rs.3000 / - Rs.5000/ ( )
b.Rs.5000 / -Rs.10000/ ( )
c.Rs.10000 / and above ( )

10. Do you have any associated disease

a.Yes ( )
b.No ( )

If yes, specify …….

PART-II

Structured Questionnaire On Knowledge Regarding Management Of Dialysis

1.Dialysis is

a) A technique in which substances move from blood through a semipermeable membrane and into a dialysis solution

b) To restore the work capacity

c) To decrease the energy

2.The principles of dialysis is

a) Ultrafiltration , diffusion and dialyser

b) Diffusion, osmosis and ultra filtration

c) Osmosis , ultrafiltration and dialysate.

3. In continuous cyclic peritoneal dialysis the fluid will be dwell for

a) 24 hours

b) 8 hours

c) 5 hours

4. The one of the contraindications for the peritoneal dialysis

a) Multiple abdominal surgical procedure

b) Continue doing exercise

c) Obesity

5. The most commonly affected virus in the peritoneal catheter site is

a) Streptococcus aureus

b) Influenza

c) Staphylococcus aureus

6. Arteriovenous grafts is

a) To improve the quality of life

b) A bridge between the arterial and venous supplies

c) To decrease the energy

7. The main complication of peritoneal dialysis is
   a) Carbohydrate and lipid abnormalities
   b) Severe obstructive pulmonary disease
   c) Inguinal hernias

8. Automated peritoneal dialysis is done for
   a) 32 to 34 hours
   b) 24 to 48 hours
   c) 10 to 14 hours

9. Nightly intermittent peritoneal dialysis is done for
   a) 12 to 14 hours
   b) 24 to 30 hours
   c) 8 to 12 hours

10. Peritoneal dialysis is useful for
   a) Acute renal failure
   b) Chronic renal failure
   c) Both

11. Hypotension may be caused due to
   a) Removal of sodium and water
   b) Anastomosis
   c) Hypersensitivity

12. The main purpose of dialysis is
   a) To improve the quality of life
   b) To decrease the life expectancy
   c) To cure disease

13. You should have ----------towards to life
   a) Negative attitude
   b) No attitude

c) Positive attitude

14. Smoking should be
    a) Avoided
    b) Taken during holidays
    c) Taken once a day

15. Fluids should be consumed as
    a) More amount
    b) Limited amount
    c) Frequently

16. Heavy work should be
    a) Continued
    b) Avoided
    c) Intermittently done

17. Diet should conatin
    a) Calcium carbonate
    b) Fiber containing foods
    c) Low protein and low fluids

18. Salt should be
    a) taken whenever needed
    b) restricted
    c) continued as before

19. Potassium should be
    a) avoided
    b) taken frequently
    c) frequently restricted

20. Goal of diet management is to
    a) Improve the nutritional status
    b) reduce the body weight

c) increase the body weight

21. Limit the amount of spicy foods on diet
    a) to control thirst
    b) to increase thirst
    c) to increase appetite

22. Fruits that contain a lot of water
    a) can be consumed once a day
    b) can be consumed limited quantity
    c) should be avoided

23. Benefits of the exercise are
    a) to improve the muscle strength
    b) to decrease the muscle strength
    c) to decrease the personality

24. Exercise can be performed
    a) 20 mins per day
    b) weekly once
    c) 3 times a week

25. The most important exercise is
    a) weight lifting
    b) jogging
    c) walking

26. When you experience discomfort during exercise
    a) continue during exercise
    b) eat snacks
    c) stop doing exercise and consult the doctor

27. Follow up should be done
    a) When ever needed
    b) As per doctor's advice

c) Only if there is a problem

28. If there is any adverse reaction of medication
    a) Continue the medication
    b) Consult with neighbours
    c) Stop the medication and consult the doctor

29. Before returning to work
    a) consult the physician
    b) consult the family members
    c) no need to ask any one

30. After discharge if you experience any signs and symptoms of disability should
    a) Consult the doctor
    b) Take over the counter medications
    c) Drink more water

CRITERIA RATING SCALE FOR VALIDATING TOOL

Respected Madam/Sir

Kindly review the items in the tool. If you agree with the criteria, please place tick mark in “RELEVANT” column otherwise place the tick mark in “NEEDS MODIFICATION” column or “ NOT RELEVANT” and give your comments in the remarks column.

SECTION A: DEMOGRAPHIC VARIABLES

S NO	ITEM	RELEVANT	NEEDS MODIFICATION	NOT RELEVANT	REMARKS
1	Age				
2	Gender				
3	Marital status				
4	Religion				
5	Educational status				
6	Occupational status				
7	Type of Family				
8	Type of work				
9	Family monthly income				
10	Do you have any associated disease				

Suggestion if any : Signature of validator

¾¦nr®¡if H
gFÂ - I

Ú©l ehŸ ÁWÚuf nfhshW cŸs nehahëfS¡fhf bjhFf¥g£l nehahëæ‹ Ra égu§fŸ g‰¿a édh¤ bjhF¥ò

njÂ : khÂç v©.:

1. taJ (tUl¤Âš)

   m) 20 – 35 ( )

   M) 36 – 50 ( )

   Ï) 51 – 65 ( )

   <) 65¡F« nkš ( )

2. ghèd«

   m) M© ( )

   M) bg© ( )

3. ÂUkz¤ jFÂ

   m) ÂUkzkhfhjt® ( )

   M ÂUkzkhdt® ( )

   Ï) éthfu¤J¥ bg‰wt® ( )

   <) fzt‹ (m) kidéia ÏHªjt®fŸ ( )

4. kj«

   m) ÏªJ ( )

   M) K°Ä« ( )

   Ï) »¿°Jt« ( )

   <) k‰wit ( )

5. FL«g tif

   m) T£L¡ FL«g« ( )

   M) jå¡ FL«g« ( )

6. fšé¤ jFÂ

m) fšé¤jFÂ Ïšyhjt® ( )

M) bjhl¡f¡fšé (1-8 tiu) ( )

Ï) Ïilãiy¡fšé (9-12 tiu) ( )

<) nkšãiy¡fšé (11-12 tiu) ( )

c) g£ljhç / Ïizahd jFÂ ( )

7. ntiy¤ jFÂ

m) ntiy Ïšyhik ( )

M) murh§f ntiy ( )

Ï) jåah® ntiy ( )

<) Ra ntiy ( )

8. bjhêš égu«

m) ÏyFthd bjhêš ( )

M) eL¤jukhd bjhêš ( )

Ï) fodkhd bjhêš ( )

9. khj tUkhd«

m) %. 3000/- Kjš %. 5000/- tiu ( )

M) %. 5001/- Kjš %.10000/- tiu ( )

Ï) %.10001/- k‰W« mj‰Fnkš ( )

10. ntW VnjD« clš nehŒfŸ ÏU¡»wjh?

m) M« ( )

M) Ïšiy ( )

M« våš F¿¥ÃLf.

lahiyÁì‹ nkyh©ik g‰¿a m¿Î¤Âwid nrhÂ¡f bjhf¡f¥g£l édh¡fŸ

1) lahiyÁ° v‹gJ?

m) bjhêš E£g Kiwæš Ïu¤j« R¤Âfç¥gjhF«.

M) ntiy¤ Âwid ÂU«g¥ bgWjš.

Ï) thG« eh£fis Fiw¥gjhF«.

2) lahiyÁì‹ bfhŸiffŸ

m) E©to¤jš , éutš k‰W« lahiyr®

M) éutš, r›ñL gutš k‰W« E©to¤jš.

Ï) r›ñL gutš, E©to¤jš k‰W« lahiynr£

3) bjhl® RH‰Á bgçnlhåaš lahiyÁ° v›tsÎ kâneu«
lahiyÁì‹ Cwš Úiu tæ‰¿DŸ it¡f nt©L«?

m) 24 kâ neu«

M) 8 kâ neu«

Ï) 5 kâ neu«

4) bgç nlhåaš lahiyÁìš Ku©g£lit vJ?

m) jhœªj Ïu¤j mG¤j ãiy

M) clš gUk‹

Ï) K‹ò tæ‰¿š mWit Á»¢ir nk‰bfh©nlh®

5) bgçnlhåaš to FHhæš äfÎ« vëÂš jh¡f Toa itu° vJ?

m) °£bu¥nlhfh¡f° M®ô«°

M) Ï‹ óSg‹rh

Ï) °blignyh fh¡f° M®ô«°

6) jkå Áiu x£LKiw v‹whš v‹d?

m) thœifæš ju¤ij ca®¤Jjš

M) ehoiaÍ eu«igÍ« Ïiz¤J mWit Á»¢ir brŒtJ.

Ï) clš r¡Âia Fiw¤jš.

7) bgçnlhåaš lahyÁì‹ _y« V‰gL« Á¡fš vJ?

m) fh®ngh iA£nu£ k‰W« bfhG¥Ãš V‰gL« Ïašò kh‰w«.

M) Rthr¤Âš V‰gL« nfhshW

Ï) Flš Ïw¡f«

8) jhåa§» bgçlhåaš lahiyÁ° ..... kâ neu« MF«.

m) 32 – 34 kâ neu«

M) 24 -48 kâ neu«

Ï) 10 - 14 kâ neu«

9) ÏuÎ Ï‹l®ä£l‹ bgçnlhåaš lahiyÁ° ..... kâ neu« MF«.

m) 12 - 14 kâ neu«

M) 24 -30 kâ neu«

Ï) 8 - 12 kâ neu«

10) bgçnlhåaš lahiyÁì‹ ga‹ghL

m) FW»a ÁWÚuf nfhshW

M) Ú©lehŸ ÁWÚuf nfhshW

Ï) Ïit Ïu©L«

11) Fiwªj Ïu¤j mG¤j« vjdhš V‰gL»wJ

m) c¥ò k‰W« j©Ùiu clèš ÏUªJ btëna‰Wtjdhš

M) mÂf goahd braš M‰wš

Ï) eho eu«ò nr®¡if

12) lahiyÁì‹ K¡»akhd neh¡f«

m) thœ¡if¤ ju« ca®Î

M) vÂ® gh®¥ig Fiw¤jš

Ï) nehia Fzkh¡Fjš

13) c§fS¡F¤ njitahd kdãiy

m) vÂ®kiwahd kdãiy

M) vªj v©zK« ÏšyhÂU¤jš

Ï) ne®kiwahd kdãiy

14) òif¥Ão¤jiy ã¢rakhf ..... nt©L«

m) jé®¡f

M) éLKiwæš vL¡f

Ï) xU ehis¡F xUKiw k£L«

15) j©Ù® Fo¥gij ..... nt©L«

m) T£l

M) Fiw¡f

Ï) jé®¡f

16) fodkhd ntiyfis

m) bjhl®ªJ brŒaÎ«

M) jé®¤J élÎ«

Ï) thu¤Âš xU Kiw brŒaÎ«

17) c§fSila czéš ÏU¡f nt©oaJ .....

m) fhšÁa« fh®gnd£

M) eh®r¤J ä¡f czÎ

Ï) Fiwªj msÎ òuj« k‰W« Ú®

18) c¥Ã‹ msit ..... nt©L«

m) Fiw¡f

M) bjhl®ªJ vL¡f

Ï) Ïuéš k£L« nr®¡f

19) bgh£lhÁa¤Âœ mtÁa«

m) jé®¤jš

M) njitahd msÎ c£bfhŸSjš

Ï) njitahd msÎ vL¥gij jé®¤jš

20) czÎ nkyh©ikæœ neh¡f«

m) czÎ¤ ju¤ij ca®¤jš

M) clš vil Fiw¤jš

Ï) clš vil mÂfç¤jš

21) czéš fhukhd bghU£fis Fiw¥gjhš .....

m) jhf¤ij¡ Fiw¡fyh«

M) jhf¤ij¡ T£lyh«

Ï) gÁia T£lyh«

22) mÂf Ú® cŸs gH§fis.....

m) xU ehis¡F xUKiw c£bfhŸsyh«

M) msthf c£bfhŸsyh«

Ï) K‰¿Ykhf jé®¡f nt©L«

23) cl‰ gæ‰Áæœ gaœfshtJ

m) cl‰ jirfis tY¥gL¤Jjš

M) cl‰jirfëœ tYit Fiw¤jš

Ï) Ïu¤j mG¤j¤ij mÂfç¤jš

24) cl‰gæ‰Á brŒa nt©oaJ

m) xU ehis¡F 20 ääl«

M) thu« xUKiw

Ï) xU thu¤Â‰F _‹W Kiw

25) äfÎ« K¡»akhd cl‰æ‰ÁahdJ

m) vil ö¡FtJ

M) XLtJ

Ï) el¥gJ

26) cl‰gæ‰Áæ‹ nghJ nrh®Î c©lhdhš

m) bjhl®ªJ brŒaÎ«

M) Á‰W©ofis c©zÎ«

Ï) cl‰gæ‰Áia ãW¤Âé£L kU¤Jtiu mQfÎ«

27) bjhl® Á»¢ir vj‹go brŒa nt©L«

m) njitæ‹ nghJ

M) kU¤Jtç‹ m¿Îiu¥go

Ï) ÏilôW vJÎ« V‰g£lhš

28) kUªJ c£bfhŸtjhš VnjD« cghijfŸ V‰g£lhš

m) kUªJfis bjhl®ªJ vL¡fÎ«

M) mU»š cŸstçl« MnyhÁ¡fÎ«

Ï) kUªij ãW¤Âé£L kUªJtiu mQfÎ«

29) lahiyÁ° KoªJ ntiy¡F ÂU«g¢ bršY« K‹ò

m) kU¤Jtiu MnyhÁ¡fÎ«

M) FL«g eg®fis MnyhÁ¡fÎ«

Ï) ahiuÍ« nf£f¤ njitæšiy

30) Á»¢ir¡F¥Ã‹ Å£o‰F¢ br‹wJ« VjhtJ ÏilôW V‰g£lhš

m) ÏilôW éyf kU¤Jtiu mQfÎ«

M) Ra kUªij vL¡fÎ«

Ï) mÂfkhf j©Ù® Fo¡fÎ«

INFORMATION, EDUCATION AND COMMUNICATION ON MANAGEMENT OF DIALYSIS

APPENDIX I

STRUCTURED TEACHING PROGRAMME

CONTENT OF THE TEACHING OUTLINE

Name of the Student	:	Mrs. T. Hepsiba Beula Rajam
Subject	:	Medical Surgical Nursing
Topic	:	Management of Dialysis
Group	:	Patients with Chronic Renal Failure Undergoing Dialysis
Place	:	Krishnammal memorial hospital
Duration	:	45 Minutes
Method of Teaching	:	Lecture Cum Discussion
Teaching Aids	:	LCD

CENTRAL OBJECTIVE:

The individual will gain adequate knowledge and desirable attitude regarding management of dialysis to apply this knowledge into practice during the dialysis.

SPECIFIC OBJECTIVES

The individual will be able to

- define dialysis.
- list down the goals of dialysis therapy.
- state the principles of dialysis.
- enlist the types of dialysis.
- explain the peritoneal dialysis.
- elicit the types of peritoneal dialysis.
- list down the contraindication of peritoneal dialysis.
- enumerate the complication of peritoneal dialysis.
- verbalize the complications of hemo dialysis.
- select the dietary measures to be followed during dialysis.
- explain the role family members in dialysis.

INTRODUCTION

Good Morning to all I am Mrs. T. HepsibaBeulaRajam, IInd year M.Sc. (N), AnnaiMeenakshi College of Nursing. I am going to discuss about the management of dialysis patient with Chronic renal failure. Today we are going to discuss about the types, principles, goals, complications, contraindications, diet, general instructions, role of family members in dialysis.

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
1	2 mts	The patient will be able to define dialysis.	**Dialysis** Dialysis is a technique in which substance move from the blood through a semi permeable membrane and into a dialysis solutions. It is used to correct fluid and electrolyte imbalances and to remove waste products in renal failure.	LCD	Explaining / Listening	Define dialysis.
2	2 mts	The patient will be able to list down the goals of dialysis therapy.	**Basic Goals of Dialysis Therapy** ➢ To remove the end products of protein metabolism, such as urea and creatinine from the blood. ➢ To maintain a safe concentration of serum electrolytes. ➢ To correct acidoses and replenish the bicarbonate levels of the blood. ➢ To remove excess fluid from the blood.	LCD	Explaining / Listening	List down the goals of dialysis therapy.

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
3	3 mts	The patient will be able to describe the Principles of dialysis	**Principles of Dialysis** Principles of ultra filtration and diffusion are used to accomplish the goals of dialysis. **Osmosis** in which water moves from an area of low concentration potential to an area of high concentration potential. **Ultra filtration** refers to removal of fluid from the blood using either osmotic or hydrostatic pressure to produce the necessary gradient. **Diffusion** is the passage of particles (ions) from an area of high concentration to an area of low concentration. Both processes occur across a semi permeable membrane with pores large enough to allow certain particles to pass through but too small to allow the passage of large particles.	LCD	Explaining / Listening	Describe the Principles of Dialysis.
4	1 mts	The patient will be able to enlist the types of dialysis.	**Types** **There are two types of dialysis** ➢ Peritoneal Dialysis. ➢ Hemodialysis	LCD	Explaining / Listening	Enlist the types of dialysis.

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
5	1 mts.	The patient will be able to explain Peritoneal dialysis.	**Peritoneal Dialysis** Peritoneal dialysis involves repeated cycles of instilling dialysate into the peritoneal cavity, allowing time for substance exchange, and then removing the dialysate. The procedure is useful for both ARF and CRF and for fluid and electrotype imbalances.	LCD	Explaining / Listening	Explain Peritoneal dialysis.
6	6 mts.	The patient will be able to elicit the types of Peritoneal dialysis.	**Types of Peritoneal Dialysis** **Continuous Ambulatory Peritoneal Dialysis** In the continuous type of peritoneal dialysis, 1.5 to 3l of dialysate is instilled into the abdomen and left in place for a prescribed period of time. The empty dialysate bag is folded and carried in a pouch or pocket until it is time to drain the dialysate. The bag is then unfolded and placed fluid drains by gravity flow. When full the bag is changed and new dialysate is instilled into the abdomen as the process continues. **Automated Peritoneal Dialysis** Automated peritoneal dialysis necessitates use of a peritoneal cycling machine. This method can be performed as continuous cyclic, intermittent, or nightly intermittent peritoneal dialysis.	LCD	Explaining / Listening	Elicit the types of Peritoneal dialysis.

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
			Continuous Cyclic Peritoneal Dialysis In this variation there are usually three cycles at night and one cycle with an 8 hour dwell in the morning. The advantage of this procedure is that the peritoneal catheter is opened only for the on and off procedures. Which reduces the risk of infection. Another advantage is that the client does not require exchanges all work or school. **Intermittent Peritoneal Dialysis** This is not a continuous dialysis procedure. Instead dialysis is performed for 10 to 14 hours, three to four times a week by the same peritoneal cycling machine as in continuous cyclic peritoneal dialysis. Hospitalized clients may be dialyzed for 24 to 48 hours at a time of they are catabolic and require additional dialysis time. **Nightly Intermittent Peritoneal Dialysis** Dialysis is performed for 8 to 12 hours each night with no day time dwells.	LCD	Explaining / Listening	

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
7	2 mts	The patient will be able to tell what are the contraindications to Peritoneal dialysis.	**Contraindications for Peritoneal Dialysis** ➢ History of multiple abdominal surgical procedures or chronic abdominal pathologic conditions. ➢ Recurrent abdominal wall or inguinal hernias. ➢ Obesity with large abdominal wall and fat deposits. ➢ Pre existing vertebral disease. ➢ Severe obstructive pulmonary disease.	LCD	Explaining / Listening	What are the Contraindication Peritoneal Dialysis.
8	10 mts.	The patient will be able to enumerate complication of Peritoneal dialysis	**Complications of Peritoneal Dialysis** Infection of the peritoneal catheter exist site to most commonly caused by staphylococcus aureus or staphylococcus epidermidis **Catheter site infection** The signs of catheter site infection include ➢ Redness, firmness or tenderness of the skin around the catheter. ➢ Pus – like drainage from the area. Should inform the doctor immediately **Peritonitis** ➢ Peritonitis is the term used to describe an infection of the abdominal cavity. ➢ People who use peritoneal dialysis are at risk of peritonitis because bacteria	LCD	Explaining / Listening	Enumerate complications of Peritoneal dialysis.

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
			can enter the abdomen through or around the peritoneal dialysis catheter. ➢ These infections can usually be treated at home and resolve completely. **Signs** ➢ Abdominal pain, which may be mild to severe. ➢ Cloudy used dialysate fluid. ➢ Fever – temperature greater than $100^{o}F$ ➢ Nausea or diarrhea. **Treatment of Infection** If there are any signs of infection, you need to be seen by a health care provider and begin treatment as soon as possible. ➢ Catheter site infections are often treated with an antibiotic cream and oral antibiotics, as well as more frequent skin cleaning. ➢ Most mild infections resolve with treatment within one to two weeks. If the infection does not resolve the catheter may need to be removed and replaced. ➢ Peritonitis usually resolves with treatment and the patient continues on	LCD	Explaining / Listening	

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
			their usual dialysis therapy. ➢ Treatment typically requires one or more antibiotics, which are commonly given with the dialysate. **Hernia** ➢ It is the medical term for a weakness in the abdominal muscle. Hernias can develop near the belly button, in the groin, or near the catheter site. ➢ Signs of a hernia include painless swelling or new lump in the groin or abdomen. If you develop signs of a hernia, contact your health care provider but continue to perform peritoneal dialysis regularly. **Diet** ➢ People who undergo dialysis both hemodialysis and peritoneal dialysis, are often required to make changes to their diet. ➢ People who use peritoneal dialysis lose protein with every exchange, which usually means that they must eat an increased amount of protein in the diet.	LCD	Explaining / Listening	

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
9	8 mts.	The patient will be able to know types of hemodialysis.	➢ Protein is found in meat, milk, chicken, fish and eggs, a dietitian can provide specific recommendation about how much and what type of protein is needed. **Weight gain** ➢ It can be a problem for people undergoing peritoneal dialysis because the dialysate contains a high concentration of dextrose, a type of sugar. A dietitian can provide guidance on now to minimize weight gain by monitoring the number of calories eaten. **Hemodialysis** **Vascular Access sites** Obtaining vascular access is one of the most difficult problems associated with hemodialysis. To carry out hemodialysis, a very rapid blood flow s required, and access to a large blood vessel is essential.	LCD	Explaining / Listening	What are the types of hemodialysis.

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
10	6 mts	The patient will be able to verbalize complication of hemodialysis.	**Shunts** In the past external shunts were used but today they are rarely used except with CRRT because of the numerous complications. **Arterio venous grafts** It is made of synthetic materials and form a bridge between the arterial and venous blood supplies. Grafts are placed under the skin and are surgically anastomosed between an artery and a vein. **Complications during Hemodialysis** **Hypotension** ➢ A decrease in blood pressure is the most frequent complication reported during hemodialysis. ➢ The immediate treatment to hypotension is to discontinue dialysis and place the patient in trendelenburg position. ➢ This will increase cardiac filling and may increase the blood pressure. **Muscle Cramps** ➢ In the majority of hemodialysis patients, cramps occur toward the end	LCD	Explaining / Listening	Verbalize complications of hemodialysis.

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
			➢ of the dialysis procedure after significant volume of fluid has been removed by ultra filtration. ➢ The immediate treatment for cramps is directed at restoring intra vascular volume through the use of small boluses of isotonic saline. ➢ Prevention of cramps has been attempted with the prophylactic use of quinine sulfate at least 2 hrs prior to dialysis. **Febrile reactions** Febrile episodes should be aggressively evaluated with appropriate wound and blood cultures ➢ Treatment of endotoxin related fever is generally supportive with antipyretics. **Nausea of Vomitting** ➢ Antiemtic can be administered. **Head ache** ➢ Acetaminophen as per doctor prescribed can be taken during dialysis	LCD	Explaning/ Listening	

S. No.	Time	Specific Objective	Content	A.V aids	Teaching Learning Activity	Evaluation
11	6 mts		**Pruritus** ➢ Skin lotions and tepid baths as well as antihistamines, oral charcoal **Hepatitis** ➢ The cause of hepatitis B and C in dialysis patients include blood transfusions or the lack of adherence to precautions used to prevent the spread of infection. **General Instructions** **Do's** ➢ Exercise 20 mts per day without discomfort. ➢ Wear comfortable shoes for walking. ➢ Walk on the flat surface. ➢ Consult the doctor for medical examination and before going to work. ➢ Review your blood studies and doctor. **Don'ts** ➢ Lifting heavy objects. ➢ Avoid doing fast movements. ➢ Driving long hours.	LCD	Explaining / Listening	

S. No.	Time	Specific Objective	Content	A.V aids	**Teaching Learning Activity**	Evaluation
12	3 mts		**Role of Family Members** • Talk about disease. • Encourage the patient to be more independent. • The client or family must perform dialysis at home or keep scheduled dialysis appointments. • Clients must comply with dietsry and fluid inatske modifications and take prescribed medications as per ordered.		Explaining / Listening	How will you know the family members role in dialysis.

Summary

Till now we have discussed about the management of dialysis, types, complications, contraindication, general instructions.

Conclusion

Hope you have gained some knowledge regarding management of dialysis and you will be able to apply it in practical

Thanking you.

Bibliography

- Brunner & suddharth " Text book of medical surgical nursing" Jaypee publishers, II edition, 2007, Pg No: 2007 -2011.
- Lewis "Text book of medical surgical nursing" Elsevier publications, 2008, Pg No:678-682.
- Joyce M Black "Text book of medical surgical nursing" Elsevier publication, 2004, Pg No : 1572-1582.
- Nicola Thomas (2002) "Text book of renal nursing" II edition, Missouri, Elsevier publication, Pg No:1548-1549
- Bare G Brenda, Smeltzer and C.Suzanna "Text book of medical surgical nursing" 10th edition, Philadelphia, Lippincott publications Pg No:969-972.

Journal References

- Elsevier Science (2011) Prevalence of end stage renal disease American journal of kidney disease Pg No:540-553
- Murtagh FE (2009) The prevalence of management of dialysis in end stage renal disease. Pg No:82-89.